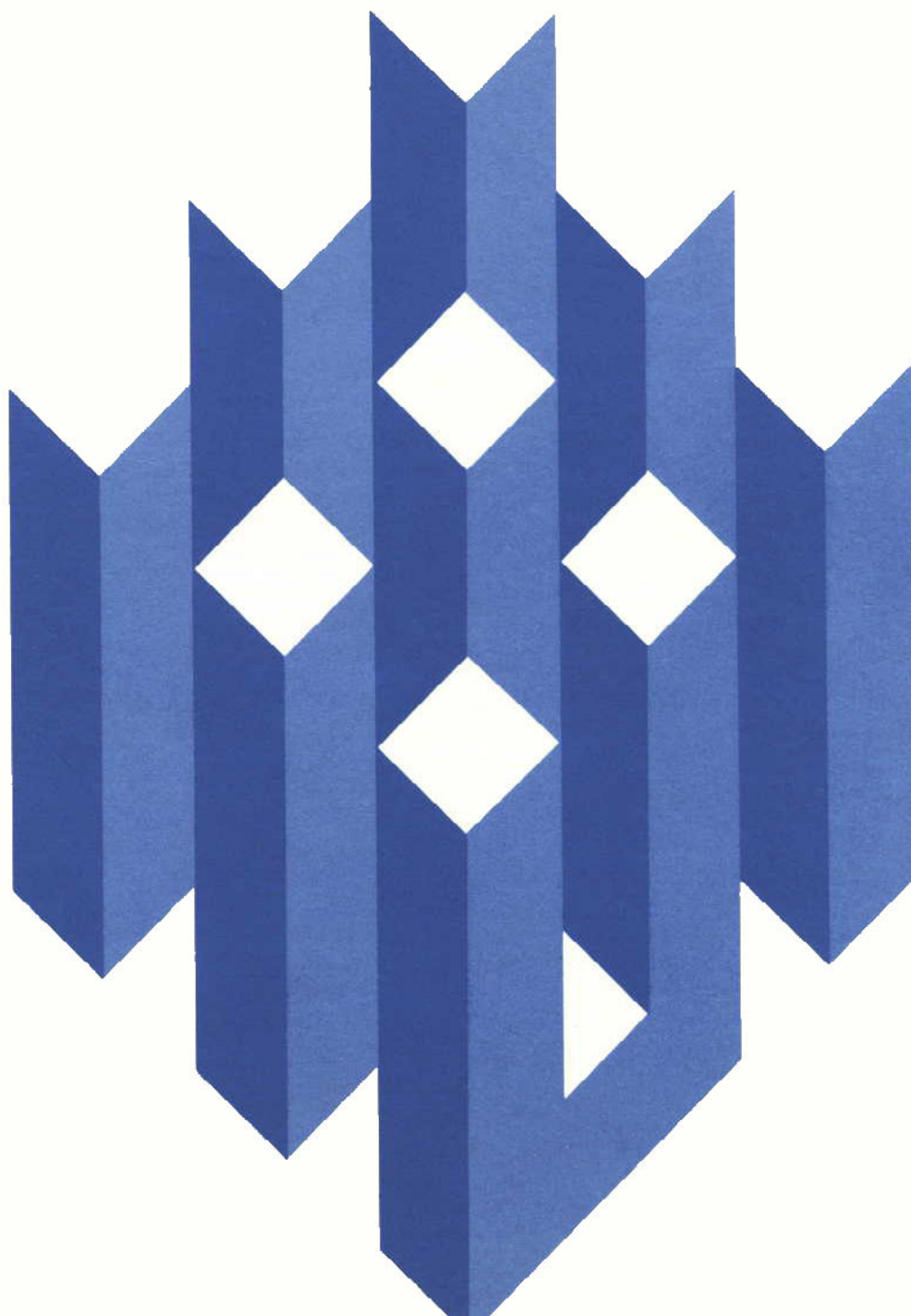


A Study of Measures of Substantial Attachment to the Labor Force Volume I



U. S. Department of Labor
Employment and Training Administration



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U.S. Department of Labor
Ray Marshall, Secretary

Employment and Training Administration
Ernest G. Green, Assistant Secretary for
Employment and Training

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PREFACE

This report presents the results of a year-long study of the alternative measures of labor force attachment used by the States in determining eligibility for unemployment insurance. The findings and conclusions of the study are presented in Volume I of the report. Volume II contains the review of the literature that we conducted on this topic, and appendices containing backup data for some of the analyses presented in Volume I.

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EXECUTIVE SUMMARY

Introduction

This study has been designed to determine the empirical impact of the various methods of measuring past attachment to the labor force used by the different States for unemployment insurance eligibility purposes. Four kinds of definitions of attachment to the labor force have been utilized in the U.S. unemployment insurance system for this purpose:

- weeks of work,
- multiples of high quarter earnings,
- multiples of weekly benefit amounts, and
- flat dollar earnings minimums.

Weeks of work has been widely recognized as the most theoretically appropriate measure of past attachment to the labor force. However, multiples of high quarter earnings and multiples of weekly benefit amount definitions were designed to simulate the weeks of work criteria at a much lower administrative cost to the States.

The major objective of this study has been to determine whether or not multiples definitions are in fact adequate proxies for time at work, both in the aggregate and for individual UI claimants. Another objective of this study has been to determine the effects of increasing or decreasing the stringency of UI monetary requirements on the numbers and characteristics of

claimants who would qualify for benefits.

Methodology

To perform the analysis a random sample consisting of both monetarily eligible and ineligible UI claimants, was selected in each of four States--Michigan, Minnesota, New York, and Oregon. The sample was selected from individuals who filed UI claims during calendar year 1976, with a sample size of approximately 2,000 in each State. The sample was stratified in three States to oversample claimants with low levels of attachment during the base year. However, the results obtained were reweighted, where possible, to reflect the actual distribution of claimants by weeks worked during the base year in each State in order that the reported statistics be representative of the State's claimant population.

Information on selected demographic and economic parameters was collected for each claimant. Although all of the four sample States used weeks of work definitions as part of their UI monetary eligibility criteria, sufficient information was available to simulate the effect of other types of definitions on qualification rates for unemployment insurance for individual claimants.

Findings and Conclusions

The major findings of this study can be summarized as follows:

1. The use of theoretically "equivalent" alternative definitions of labor force attachment--i.e., weeks of work and the "equivalent" multiple of weekly benefit amount and multiple of high quarter earnings definition--has relatively little impact upon the overall eligibility rates for UI benefits. For example, the total number of claimants who would be monetarily eligible for benefits would be roughly the same if States used 20 weeks of work, 1.50 times high quarter earnings, or 40 times the weekly benefit amount as their monetary qualification criteria.

2. The "equivalent" alternatives to weeks of work are not, however, good predictors of individual eligibility for UI benefits. In other words, the "equivalent alternatives" achieve similar results in the aggregate but they do not consistently simulate time at work for individual claimants very well. Thus, time at work is overestimated by these "equivalents" for some claimants, and underestimated for others.
3. Two biases of the "equivalent" alternatives definitions of past labor force attachment are particularly noteworthy:
 - (a) Multiples of weekly benefit amount criteria have a powerful bias in favor of claimants with high weekly wages (over \$200) compared to weeks of work or multiples of high quarter earnings criteria.
 - (b) Multiples of high quarter earnings criteria have a strong bias toward overstating time at work for those workers with less than 15-20 weeks of work.
4. Sex of claimant had no consistent influence on the amount of past attachment (as measured by weeks of work in the base year) across the four sample States.
5. With two major exceptions there are no patterns of labor force attachment for economic or demographic descriptors which hold across States:
 - (a) The first exception is age of claimant. Workers aged twenty-five to sixty-four consistently exhibited significantly greater attachment than workers aged twenty-five or less.
 - (b) Increasing attachment (as measured by weeks of work in the base year) is positively correlated with increasing average weekly wages. The difference was especially noteworthy in comparing claimants with less than 16-20 weeks of work in the base year with those with greater than 16-20 weeks of work in the base year.
6. Claimants who worked in seasonal industries do not as a group consistently differ from other claimants in either base year earnings or weeks of work.

Policy Implications

The results of this study strongly imply that States not currently using weeks of work definitions should consider doing so. Also, even though evidence of seasonality in terms of UI claimants separations was found in each State, a relatively large percentage of the claimants from most seasonal industries worked essentially for a full year (more than forty out of the past fifty-two weeks) prior to filing a claim. Since many of these individuals can satisfy any reasonable attachment requirement, it is recommended that no distinction be made between seasonal industries and non-seasonal industries for purposes of determining eligibility for unemployment insurance.

CHAPTER 1

INTRODUCTION AND SUMMARY

1.1 Overview: The Purpose of This Study

Since its inception in 1935, the unemployment insurance (UI) system in the United States has been seen as a social insurance program, rather than a welfare program. In other words, unemployment insurance benefits are not available to all of those who need money because they are unable to find a job. Instead, they are only provided to those men and women who have already worked in covered employment long enough for their employers to have paid sufficient "insurance premiums." As stated by the U.S. Department of Labor:

The goal of unemployment insurance is adequate protection during involuntary unemployment for all wage and salary workers with a demonstrated attachment to the labor force.*

The concept of demonstrated past attachment to the labor force has always had wide support as an important eligibility requirement for unemployment insurance. But no consensus has emerged in terms of developing the best operational definition of "past labor force attachment."** Some States have chosen to

* Unemployment Insurance: State Laws and Experience, U.S. Department of Labor, Employment and Training Administration, 1976, p. 6. (Emphasis added).

** "Attachment" in the context of this study refers exclusively to the concept of past experience in the labor force, as demonstrated through the UI claimant's work experience over the year prior to filing a claim for UI benefits (i.e., the base year).

measure attachment in terms of periods of time, i.e., weeks of covered employment. Others have chosen to look at total dollars earned over specific periods of the year. Moreover, the number of weeks required to qualify for benefits varies among States that use time-based definitions, the total dollars earned requirements vary among States that use this kind of definition, and so forth.

The differing definitions of attachment used by the States have the same impact on full-time workers. But it is not clear that the different definitions have the same impact upon part-time or part-year workers--workers who work only several months in the year and/or work less than 40 hours per week.

This study has been designed in an effort to determine the empirical impact of various definitions and methods of measuring of labor force attachment used by different States, and thereby answer questions such as the following:

- To what extent do theoretically equivalent definitions tend to include (or exclude) larger numbers of unemployment insurance claimants?
- If biases emerge in the aggregate number of or characteristics of claimants that qualify for benefits across the various definitions of attachment used for UI eligibility purposes, what direction do these biases take?
- If biases emerge, what are the implications of these biases for public policy?

1.2 Background: The Different Definitions of Attachment to the Labor Force

Four kinds of definitions of attachment to the labor force have been utilized in the United States unemployment insurance system to define basic monetary eligibility for UI benefits:

- Weeks of work,
- Multiples of weekly benefit amounts,
- Multiples of high quarter earnings, and
- Flat earnings minimums.

In addition to this, several alternative definitions have either been implemented in other jurisdictions or received attention in the theoretical literature. The four major kinds of definitions and alternatives are discussed briefly below.

1.2.1 Weeks of Work Definitions

When the unemployment insurance program was first enacted, the Federal government suggested that weeks of work would be the most appropriate way to measure attachment to the labor force, and that thirteen weeks appeared to constitute a sufficient measure of attachment to qualify for UI benefits. In the years since the passage of the Social Security Act, two trends in definitions appeared. Although weeks of work has almost universally been seen as the most attractive theoretical definition of attachment, a majority of States quickly abandoned the concept in favor of less costly, easier to administer alternatives.* Secondly, those States which have maintained a weeks of work definition have generally tended to increase the total time duration which they consider to be "substantial attachment to the labor force."

As is shown in Exhibit 1-1 on the following page, only thirteen States currently use weeks of work as a measure of attachment to the labor force. Most of these States use eighteen weeks or more; seven of the thirteen use twenty weeks as a requirement for benefits.

To eliminate weeks of "inconsequential employment" all States except Hawaii require one of the following: a claimant must (1) earn a specified minimum amount in each week which is to be counted toward eligibility or (2) earn a specified average minimum per week for those weeks counted. In either case, the amount is so low (typically \$20-\$40) that those employed part-time, in relatively casual jobs, could collect benefits.

*An analysis of the literature which supports this conclusion is contained in Appendix A to this report.

EXHIBIT 1-1

CURRENT PROVISIONS OF STATE UNEMPLOYMENT
INSURANCE LAWS: ATTACHMENT DEFINITIONS

Weeks of Work	Multiple of High Quarter Earnings	Multiple of Weekly Benefit Amount	Flat Dollar Earnings
Florida	Alabama	Arkansas	Alaska
Hawaii ^a	Arizona	Colorado	California
Michigan	D.C.	Connecticut	Illinois
Minnesota	Georgia	Delaware	Iowa
New Jersey	Idaho	Kansas	Maine
New York	Indiana	Louisiana	Nebraska
Ohio	Kentucky	Massachusetts ^c	New Hampshire
Oregon	Maryland	Mississippi	W. Virginia
Rhode Island	Nevada	Missouri	
Utah	New Mexico	Montana	
Vermont	N. Carolina	N. Dakota	
Washington	Oklahoma	Pennsylvania	
Wisconsin	S. Carolina	Puerto Rico,	
	Texas	S. Dakota	
	Wyoming ^b	Tennessee	
		Virginia	

- a. Hawaii also uses a multiple of weekly benefit amount requirement.
- b. Wyoming switched from weeks of work in 1977.
- c. Massachusetts switched from flat dollar earnings in 1977.

In addition, a few States specify a minimum base period earnings requirement or specify alternative definitions that could be satisfied in lieu of weeks of work.

Problems with the Definition

In theory, the weeks of work measure treats low paid and high paid workers alike in terms of qualifying requirements and is an example of use of the "time of work" measure. In practice, however, definitions of what constitutes a "week's worth of work" are difficult to administer, and dollar minimums have usually been used to differentiate between inconsequential and countable weeks of work. Such minimums run two risks--(1) they tend to discriminate against lower-paid workers in favor of higher-paid workers; (2) if set too low, they allow employment of one day or less to count as an eligible week of work.

An administrative drawback peculiar to the weeks of work criterion is that weeks of work data are not available from wage records accumulated for Social Security purposes. The widely employed alternatives to the weeks of work measure do utilize this Social Security wage data, resulting in considerably lower administrative costs for the State.

In short, weeks of work is both the most theoretically attractive and, administratively, the most expensive method for measuring attachment. Given the administrative and cost problems associated with collection and analysis of weeks of work data, a majority of the States have adopted proxy measures which attempt to use more readily available data to estimate weeks of work. Three of these measures are discussed below. This study has been undertaken in large measure, in an effort to determine how good these "proxies" are.

1.2.2 Multiples of Weekly Benefit Amounts

The multiple of weekly benefit amount definition uses earnings collected by calendar quarter as a proxy for time at work in the following fashion: States using this definition

require that applicants for UI have base year earnings equal to a multiple of the weekly benefit amount to which they would be entitled. The multiplicative factor is usually between thirty and forty. The average weekly wage on which the weekly benefit is calculated is based on the high quarter wages during the base year and implicitly assumes that the claimant works for the entire quarter (all thirteen weeks) during the base year quarter in which the highest wage is recorded. Thus, if the weekly benefit amount was 50% of gross weekly wage, the high quarter wage would typically be divided by 25 or 26 to determine the appropriate weekly benefit amount. In such States a requirement that earnings be forty times the weekly benefit amount is designed to be equivalent to a requirement of twenty weeks of work.

As was shown in Exhibit 1-1, sixteen States and Puerto Rico currently use this definition.

Problems with the Definition

The multiple of weekly benefit amount definition represents an effort to combine the advantages of weeks of work definition with the convenience of low administrative costs for collection of wage data. As long as the maximum weekly benefit amount reflects the wage scales of the vast majority of workers, this definition will provide a reasonable approximation to time worked. However, difficulties have been encountered in raising maximum benefit levels to keep pace with rises in actual State wages,* and this has tended to decrease the usefulness of this proxy by discriminating against lower-paid workers. Those workers whose average weekly earnings exceed the amount necessary to

*Although the reasons for this vary from State to State, in many cases failure to raise the maximums has been attributed to the feared work disincentive effects of high UI benefits.

qualify for the maximum benefit are able to qualify for benefits with less employment--far less in some cases--than those whose wages are below this threshold.

An additional problem is created by the assumption that the average weekly wage is equal to one-thirteenth of the high quarter wages. If the worker is employed for less than the entire quarter, the use of earnings as a proxy for time at work is misleading.

1.2.3 Multiples of High Quarter Earnings

As is implied by the title of this definition, this criterion requires that earnings over the base year be a multiple (usually 1.25 or 1.5) of the highest quarter earnings in the base year. If the criterion is, for example, 1.5 times the high quarter wage and if one assumes that the claimant worked thirteen weeks in that quarter, it follows that the claimant is required to have worked 1.5 times thirteen weeks in the base period, i.e., for 19.5 weeks.

Fourteen States and the District of Columbia currently utilize this definition.

Problems with the Definition

Multiples of high quarter earnings apply equally to all claimants regardless of wage rates in contrast to multiples of weekly benefit amount criteria. The major drawbacks are two-fold: (1) as with multiple of weekly benefit amount definitions, if a worker's high quarter earnings represent less than thirteen weeks' work, using earnings as a proxy fails to estimate time at work accurately, and (2) in some instances, workers who earn very high wages in one quarter compared to the other three quarters--either through seasonal job opportunities or relatively unpredictable circumstances (sickness, long-term lay-offs, bonuses, overtime pay, business failures)--may be discriminated against. This latter drawback can be generalized to all types of attachment definitions that attempt to estimate the number

of weeks worked using money as a proxy for weeks. Such requirements have been said to have a "heavy but capricious impact on the numbers and characteristics of those who gain insured status."* As such these allocation measures are "discriminatory, but not discriminating,"** because a worker with twelve consecutive weeks of work in one quarter may be denied benefits whereas a worker with twelve consecutive weeks which fall into two different quarters may qualify.

1.2.4 Flat Amounts of Earnings

States using this definition have generally adopted one of two options: either (1) a flat amount of money can be earned at any time during the base period or (2) a minimum earnings requirement must be satisfied for two quarters.

Eight States currently use one of the flat amounts of earnings definitions for substantial attachment to the labor force.

Problems with the Definition

Of all the definitions now in use, only flat earnings requirements, even when allocated over a specified number of quarters, are not designed to simulate the length of time at work either directly or indirectly. The chief drawback to using this method is that it measures attachment in terms of wage rates or income. The amount of time necessary to qualify for unemployment insurance benefits is thus directly related to the wage rate. Simply put, a higher-paid worker can qualify for minimum benefits in a substantially shorter time than a lower-paid worker.

*Roche, Entitlement to Unemployment Insurance Benefits, p. 39.

**Ibid., p. 44.

Problems with Flat Earnings and Multiples Definitions

Flat earnings eligibility requirements, like multiples, attempt to take advantage of currently collected wage data by tying base years to calendar quarters. Thus, States which use flat earnings and multiple-definitions, and in non-request reporting weeks of work States,* a claimant's base year may not reflect his most recent wage history, since these claimant's base year ending date is based on the last quarter for which his/her wage data is available.

All attachment definitions which contain monetary tests of any kind share another common drawback: since monetary provisions must be amended by legislative action, these provisions tend to lag considerably behind the prevailing wage rates. Thus, less attachment than the law originally intended may be sufficient to qualify for unemployment insurance benefits.

1.2.5 Alternative Definitions

As part of our review of the implications of the use of alternative definitions of labor force attachment, we also reviewed definitions not currently used in this country. There are several groups who demonstrate substantial desire to work, although not necessarily substantial and recent prior attachment. These include:

- New and recent entrants to the labor market: school leavers (dropouts) and graduates, and women who never have worked are not covered by unemployment insurance even though they may demonstrate, through their job search behavior, substantial current attachment to the labor force.
- Re-entrants to the labor force--particularly women who re-enter the labor market, after a period of home production.

These labor force participants are not covered by UI benefits in the United States. There are other groups that are also

*Request-reporting states do not normally collect wage information for workers, but request the information from employers when a claim is filed. Non-request reporting States collect wage information for all workers on a quarterly basis through Social Security records.

not covered by UI benefits, but these are groups in specific occupations or industries which the States have chosen not to cover, such as State and local government employment, and some agricultural and migrant workers, and so forth.* The latter groups are not conceptually different than covered workers and will not be discussed here.

Definitions Which Are More Responsive to New Entrants and/or Re-Entrants

Two methods suggested to increase eligibility for recent entrants and re-entrants include:

- Using a longer base period to determine unemployment insurance eligibility. This method is utilized in varying forms by some European countries, New York, and Canada.** The latter two use a two-year period to establish eligibility for benefits as an alternative for claimants who have demonstrated some specified minimum attachment in the last year. Although some workers do not earn enough to qualify for benefits under normal circumstances, these persons may have demonstrated substantial attachment over the two-year period. For example, in New York, claimants who do not qualify under the minimum of twenty weeks of work provision may qualify if they have worked fifteen weeks in the last year and forty weeks in the last two years. Such provisions protect those who have demonstrated substantial attachment in the past but who, because of economic conditions or other reasons, may not have been able to work a sufficient number of weeks in the last year to qualify for unemployment insurance. Such a provision may also assist some re-entrants to the labor force.
- Lower eligibility requirements for recent entrants to the labor market. Several European countries have lower qualifying requirements for younger workers. Such provisions assist recent entrants, who may be substantially

*New coverage provisions for 1978, enacted through PL 94-566, has brought many of these workers within the coverage of the UI system.

**Wisconsin recently dropped a two-year base period provision because very few claimants utilized it. New York estimates that somewhere between 0.1 percent and 0.3 percent of those qualifying for benefits do so under this provision.

attached to the labor force, but who have thus far been unable to accumulate sufficient work experience to qualify for unemployment insurance. It is felt in some circles that these provisions for recent entrants help to promote stronger labor force attachment attitudes among the young by encouraging them to search for employment when they might otherwise tend to drop out of the labor force.

Definitions Measuring Time at Work

Other suggestions for reform of eligibility criteria involve improving the measurement of time at work. Among the most attractive from a theoretical (although not administrative) viewpoint are:

- Hours of work. Conceptually hours of work would be preferable to weeks of work. It would directly measure time at work, eliminating the problem of how to deal with (or define) partial weeks of employment. Alternatively, hours of work could be used instead of monetary minimums to define the minimum employment in each week necessary for that week to be counted towards eligibility. This would completely eliminate wage bias from the weeks of work definition. Wyoming used such a provision until 1977, with 20 hours per week necessary to have the weeks counted toward UI benefit eligibility.
- Days of work. Several European countries use days of work. Although data collection does not pose as severe a problem as do hours of work, a minimum amount of employment for each day, in order for that day to be counted towards benefit eligibility, must still be determined.

Ideally, alternatives such as these would have been included in our study. However, the available State data are simply not designed to simulate the effect of these types of alternative definitions upon eligibility, and it has therefore been necessary to exclude them from further consideration.

1.3 The Study Rationale: Disparities Among Theoretically Equivalent Definitions

As was indicated in Section 1.2 above, the weeks of work definition of attachment to the labor force has been widely viewed

as the most attractive, but is implemented in only about a quarter of the States because of the presumed additional costs and administrative problems associated with its utilization. Given this situation, a majority of the States have chosen to use definitions of attachment which in theory produce equivalents of a weeks of work definition, at considerably lower administrative cost.

However, empirical research completed prior to the beginning of this study began to provide indications that certain theoretically equivalent definitions were not empirically equivalent. In other words, certain definitions favored some applicants for UI at the expense of others and/or were either more or less restrictive.

For example, in 1974, Arizona compared two "equivalent" definitions of attachment for their effect on claimant eligibility and benefit payments. Arizona officials compared: (1) forty times weekly benefit amount (nominally equivalent to twenty weeks of work), and (2) one and one-half times high quarter earnings--the definition used by the State--which was considered to be "equivalent" to 19.5 weeks of work. Arizona found the multiple of weekly benefit amount somewhat more restrictive than the one and one-half times high quarter definition, resulting in a net loss of eligibility for 440 claimants over a one-year period.

Two studies in Oregon and Alaska compared actual weeks of work data with one and one-half times high quarter earnings definitions. Oregon found that for a sample of claimants in 1960, 70.1% had annual earnings equal to at least one and one-half times high quarter earnings, but only 63.2% had earned at least \$20 in each of at least 20 weeks. Alaska collected both weeks of work and quarterly earnings data in the early 1960's. The Alaska researchers found that, in practice, a one and one-half times high quarter earnings ratio represented approximately 14 actual weeks of work rather than 19.5, and that a two times high quarter earnings ratio represented approximately 20 actual

weeks of work rather than 26.*

Both Alaska and Oregon found that weeks of work excluded more individuals than the multiples requirements tested. Alaska found, in addition, that weeks of work requirements would tend to confer eligibility upon "migrant" workers while multiples would tend to exclude them and include the native labor force.

The labor force of these three States is quite unrepresentative of the labor force of the United States. Alaska is characterized by extreme seasonality of employment and a substantial Native American population. Arizona also has a substantial Indian population, and an economy which is not representative of the U.S. economy. Oregon is heavily reliant on lumber and canning and is subject to substantial seasonal swings in employment.

Given this situation, the Department of Labor saw a need to examine the eligibility implications of alternative measures of labor force attachment in light of current employment patterns using a more representative data base. This study was funded by the Unemployment Insurance Service to accomplish this objective.

1.4 Overview of Study Methodology

In October, 1976, Urban Systems Research and Engineering (USR&E) was awarded a contract to conduct an empirical analysis of different definitions of attachment to the labor force. The study began by defining explicit project goals. Primary among these was the production of a set of empirical results which would be useful to Department of Labor policy-makers in analyzing the impact of differing definitions of labor force attachment, and hence would strengthen the Department's ability to provide advice and recommendations to the Congress on the one hand and to the States on the other.

*A week of work was defined as any week in which the worker earned \$30 or more.

The basic methodology employed was a straightforward one: to collect and analyze sufficient data about UI claimants from from a large enough number of States to permit "simulation" of the effect of different qualifying criteria, i.e., definitions of past attachment, upon large and varied groups of claimants. Since weeks of work has been generally considered to be the theoretical ideal, it was decided that much of the eventual analysis should focus on comparisons of weeks of work with other definitions. Since weeks of work data were only available in those States which use weeks of work as the qualifying requirement for unemployment insurance benefits, it became evident that one could only compare weeks of work definitions and others if the sample of States was chosen exclusively from States using the weeks of work criterion.

Therefore, in order to measure the impact of changing definitions of labor force attachment, USR&E sampled four States to obtain data on approximately 8300 new claims for UI benefits submitted in calendar year 1976. The States of Michigan, Minnesota, New York, and Oregon were chosen because they (a) collected weeks of work data, and (b) otherwise represented a varied mix of economic and demographic characteristics.

New York and Michigan represent the extremes of the weeks of work criterion: Michigan requires fourteen weeks to qualify for benefits (the fewest weeks among those which use the weeks of work criterion), while New York requires twenty weeks (and is the highest). Oregon and Minnesota employ criteria of attachment that lie in between the two.

Each of the four States was requested to provide data on a stratified random sample of 1800 claimants of whom 600 had worked less than twenty weeks in the base year, and the remaining 1200 had worked twenty weeks or more. As is illustrated in Exhibit 1-2, the actual distributions differed considerably from the requested distribution.

The sample was stratified in order to increase the proportion of claimants with the least attachment. This was done

Exhibit 1-2
Claimant Sample

<u>State</u>	<u>Persons with <20 Weeks of work</u>		<u>Persons with ≥ 20 Weeks of Work</u>		
	<u>Number</u>	<u>Percent</u>	<u>Number</u>	<u>Percent</u>	<u>Total</u>
Michigan	475	20.0	1901	80.0	2376
Minnesota	411	23.8	1315	76.2	1726
New York	661	29.7	1564	70.3	2225
Oregon	611	33.0	1239	67.0	1850
Total	2102	25.9	6075	74.1	8117

because it is this group which is most sensitive to the effects of changing definitions of labor force attachment. Wherever possible, the data presented in this report have, however, been reweighted in order to represent more accurately the impact of the different definitions on the entire UI claimant population. All data presented in Chapters 3, 4, and 5 of this report have been re-weighted to reflect the actual weeks of work distribution of claimants, except the Minnesota data, for which this was not possible. The actual weeks of work distribution of UI claimants, i.e., the proportions of claims with less than 20 weeks and those with 20 weeks or more, in the sample States is presented in Exhibit 1-3 on the following page.

Data from each State were analyzed in several ways:

- A description of the claimant population was compiled including demographic and economic variables;
- Crosstabulations of important population descriptors were calculated;
- The number of weeks of work needed for eligibility was varied between fourteen and twenty-six weeks and the change in the population of eligibles described;

- An impact analysis was conducted to examine the effects of changing definitions of attachment from weeks of work to multiples of high quarter earnings and/or multiples of weekly benefit amount:
 - thirty, forty and fifty times weekly benefit amount were used as measures of labor force attachment;
 - 1.25, 1.5 and 2.0 times high quarter earnings were also examined;
- Measures of labor market attachment were compared to determine the impact on eligibility by demographic and economic characteristics induced by changing definitions;
- Seasonal industries were examined to determine the demographic composition of their employees;
- Seasonal industries were analyzed to determine whether alternative definitions of attachment affected claimants from seasonal industries in a different manner than those from non-seasonal industries.

The methodology used by USR&E in this study is discussed in greater detail in Chapter 2 below. The findings of our analyses are presented in Chapters 3, 4, and 5, and are summarized in Section 1.5 below.

Exhibit 1-3

Actual State Claimant Distribution

<u>State</u>	<u>Persons with <20 Weeks of Work (Percent)</u>	<u>Persons with >20 Weeks of Work (Percent)</u>
Michigan*	20.0	80.0
Minnesota**	NA	NA
New York	12.7	87.3
Oregon	15.9	84.1

*Because a random sample was drawn in Michigan, actual state claimant distribution by weeks of work were assumed to be the same as the distributions obtained in our claimant sample.

**Actual state claimant distribution by weeks of work was not available for Minnesota.

1.5 Overview of Study Findings and Conclusions

The empirical findings and conclusions may be grouped into two general categories:

- a determination of the overall proportion of UI claimants who would be eligible using different definitions of attachment and levels of stringency, and
- a determination of the distributional patterns for the demographic and economic descriptors of eligible claimants under the various definitions and stringency levels.

In the first case we estimated the fraction of the population that would be eligible under one definition--such as weeks of work--but would not be eligible under other definitions--such as multiple of high quarter earnings or multiple of weekly benefit amount. Weeks of work was used as our "benchmark" for comparison purposes as a result of its virtually unanimous acceptance as the best definition in UI literature. The second set of results compares the effect of the different definitions upon eligibility for benefits according to claimants with different demographic and economic characteristics.

The most important findings and conclusions for each of these kinds of analysis are summarized below. Figures in parentheses refer to the chapters where the findings and conclusions are presented in greater detail.

Findings and Conclusions

The major findings of this study can be summarized as follows:

1. The use of theoretically "equivalent" alternative definitions of labor force attachment--i.e., weeks of work and the "equivalent" multiple of weekly benefit amount and multiple of high quarter earnings definition--has relatively little impact upon the overall eligibility rates for UI benefits. For example, the total number of claimants who would be

monetarily eligible for benefits would be roughly the same if States used 20 weeks of work, 1.50 times high quarter earnings, or 40 times the weekly benefit amount as their monetary qualification criteria. (Chapter 4)

2. The "equivalent" alternatives to weeks of work are not, however, good predictors of individual eligibility for UI benefits. In other words, the "equivalent alternatives" achieve similar results in the aggregate but they do not consistently simulate time at work for individual claimants very well. Thus, time at work is overestimated by these "equivalents" for some claimants, underestimated for others. (Chapter 4)
3. Two biases of the "equivalent" alternatives definitions of past labor force attachment are particularly noteworthy:
 - (a) Multiples of weekly benefit amount criteria have a powerful bias in favor of claimants with high weekly wages (over \$200) compared to weeks of work or multiples of high quarter earnings criteria. (Chapter 4)
 - (b) Multiples of high quarter earnings criteria have a strong bias toward overstating time at work for those workers with less than 15-20 weeks of work. (Chapter 4)
4. Sex of claimant had no consistent influence on the amount of past attachment (as measured by weeks of work in the base year) across the four sample States. (Chapter 3)
5. With two major exceptions there are no patterns of labor force attachment for economic or demographic descriptors which hold across States:
 - (a) The first exception is age of claimant. Workers aged twenty-five to sixty-four consistently exhibited significantly greater attachment than workers aged twenty-five or less. (Chapter 3)
 - (b) Increasing attachment (as measured by weeks of work in the base year) is positively correlated with increasing average weekly wages. The difference was especially noteworthy in comparing claimants with less than 16-20 weeks of work in the base year with those with greater than 16-20 weeks of work in the base year. (Chapter 3)

6. Claimants who worked in seasonal industries do not as a group consistently differ from other claimants in either base year earnings or weeks of work. (Chapter 5)

1.6 Policy Implications

The results of this study strongly imply that States not currently using weeks of work definitions should consider doing so.* It is evident from our review of the literature that the preferable definition of labor force attachment is time spent at work.** All other definitions attempt to simplify methods of measuring time at work but are imperfect substitutes for it.

This study has demonstrated that multiple of weekly benefit amounts tends to be heavily biased in favor of those workers with high weekly wage rates. Multiple of high quarter earnings, on the other hand, tends to measure labor market attachment inaccurately, at best.

With the advent and growing sophistication of automated data processing systems at both the State level and the individual employer level, adoption of weeks of work should prove much less difficult--and perhaps less costly--now than it would have in the past.

If States are reluctant to adopt weeks of work, it is recommended that multiple of high-quarter earnings be chosen over multiple of weekly benefit amounts. Despite their theoretical equivalence, the effect of each on eligibility is quite different. As has been shown in this report, multiple of weekly benefit amounts definitions tend to favor high wage earners much more than do multiple of high quarter earnings definitions.

Even though evidence of seasonality in terms of UI claimant separations was found in each State, a relatively large percen-

*This study has not addressed the relative costs of administering the different kinds of systems associated with the different definitions of attachment. States should, obviously, consider these factors before making any final decisions.

**See Appendix A to this report for a summary of our literature review.

tage of the claimants from most seasonal industries worked essentially for a full year (more than forty out of the past fifty-two weeks) prior to filing a claim. For most of the seasonal industries, the percentage of claimants with 26 weeks or more weeks of work during the base year were similar to or greater than the State average. Thus, under even the most stringent standards contemplated as measures of labor market attachment, these claimants have demonstrated a sufficient attachment to qualify for unemployment insurance benefits.

Since many of these individuals can satisfy any reasonable attachment requirement, it is recommended that no distinction be made between claimants from seasonal and non-seasonal industries for purposes of determining eligibility for unemployment insurance.*

1.7 Overview of this Report

The remaining chapters of this report contain a more detailed presentation of USR&E's approach to the conduct of this study and the results obtained. Chapter 2 contains a detailed description of the study methodology including a discussion of the data sources and methods of data collection.

A list of criteria for selecting sample States is presented, and the final sample frame chosen is reviewed. Finally, the selection of a sample size is discussed, as well as how the sampling procedures and the unemployment insurance system itself have lead to biases in the findings.

Chapters 3 through 5 present our empirical results. Chapter 3 is descriptive, examining the population of unemployment insurance claimants in each State. To describe the population we employ both univariate and multivariate statistics.

*It may be more equitable to deal with seasonal industry by raising the ceiling on tax rates on firms in these industries so as to better reflect their unemployment record. This may also have the effect of eliminating any subsidy of seasonal industries by the rest of the economy.

Chapter 4 presents an impact analysis in which the empirical results of using alternative definitions of attachment are presented and analyzed. For each definition, those who qualify and those who don't qualify are examined, and classified by the important demographic and economic descriptors. The impact of different financial requirements upon eligibility for benefits is examined and compared. Chapter 5 examines seasonality, reviewing the definitions and explaining our choice of definition. We examine the statistical evidence of seasonality of employment and analyze the effect of using different attachment criteria on eligibility for unemployment insurance.

Five substantive appendices have also been prepared and constitute Volume II of this report. Appendix A contains a relatively comprehensive discussion of the relevant literature, focussing upon scholarly works which address the theoretical foundations for measuring labor market attachment. In this appendix, we review the theory of labor supply and job search, and examine the literature for appropriate measures of labor market attachment for UI eligibility purposes. Reasons for the virtually unanimous acceptance of weeks of work as the best theoretical measure of attachment are reviewed. Finally, we discuss appropriate definitions of seasonality--both by industry and worker. In each of these sections the literature is reviewed and the more salient articles discussed; an extensive bibliography is also included.

Appendix B includes a presentation of the claimant characteristics available for each study State as well as the coding used. Appendices C, D, and E present greater detail for the data presented in Chapters 3, 4, and 5, respectively.

CHAPTER 2

DESCRIPTION OF SAMPLING AND DATA COLLECTION

2.1 Introduction

In order to conduct this study, it was necessary to select a sample of States, to develop a procedure to select individual UI claims from each of the sample States, and to analyze the resulting data. The data analysis was straightforward, and for the most part, consisted of crosstabulations of different attachment requirements with demographic and economic descriptors of UI claimants.

This chapter contains a detailed description of the methodological approaches utilized in this report for choosing States and claims, and presents a discussion of the implications of these methodologies for interpretation of the data. Selection of sample States is discussed in Section 2.2, and the sampling design for data collection within each State is presented in Section 2.3. Problems of data availability made it necessary to depart from the initial design. These problems and the USR&E response to them are presented in Section 2.4. Sections 2.5, 2.6, and 2.7 contain a discussion of the biases implicit in the data available and sampling procedures used, the effects of these biases upon our results, and a discussion of the extent to which "re-weighting" of the data can overcome these biases.

2.2 Choice of States to Be Sampled

The UI literature is virtually unanimous in the conclusion that weeks of work is the most desirable and accepted criterion of labor force attachment. In order to be able to compare the effects of a variety of definitions of labor force attachment upon eligibility for benefits, we chose this as our benchmark definition. Thus, the question to be analyzed, as we have formulated it, was whether the use of alternative measures of labor force attachment such as multiples of high quarter earnings or multiples of weekly benefit amounts are comparable to--and therefore satisfactory substitutes for--weeks of work.

As a corollary to this question, we also wished to investigate whether easing or stiffening the requirement for qualifying for UI benefits affects eligibility in approximately the same manner over all measurements of attachment. For example, would increasing the number of weeks of work required to qualify for UI benefits have similar effects upon the eligible population as increasing the multiple of high quarter earnings requirement by an "equivalent" amount.

To be able to carry out this analysis, the most important variable to collect was weeks of work, since some earnings data can often be reconstructed on a quarterly basis. For example, Oregon routinely collects quarterly earnings and weeks of work information; using this data we can simulate all the attachment definitions currently in use among the States. Minnesota, on the other hand, does not collect quarterly earnings, but maintains a file for each claimant listing weeks worked, total earnings, and employment starting and ending dates. Thus, for any claimant in Minnesota, we were able to construct approximate quarterly earnings, total earnings and average weekly wage. The converse calculations cannot be made; weeks of work cannot be accurately computed from quarterly wage data.

Given this situation, it was necessary to confine our sampling frame to States in which weeks of work were available

and other measures could be relatively easily reconstructed. In short, it was necessary to restrict our attention to States that used weeks of work as their definition. As is shown in Exhibit 2-1 on the following page, this meant that the study could have been conducted in only fourteen of the fifty States.

2.2.1 Selection Criteria

The criteria employed and the results of our analyses are presented below.

1. Eliminating obviously inappropriate States. Five of the fourteen States were eliminated for the following reasons:

- Hawaii was too far to visit and had a complex UI law,
- New Jersey was known to pose substantial data gathering problems,
- Rhode Island has a non-computerized data base,
- Wyoming's employment distribution was very atypical of the United States, and
- Vermont's employment distribution was also very atypical of the United States

This left nine States from which four or five would be chosen. Because of the small number of States to be chosen, and because of the small sampling frame, random selection was felt to be inappropriate. The likelihood of choosing an unrepresentative sample of States under a random selection procedure was judged to be unacceptably high. For example, the probability of drawing three North Central States out of four equals .127.

Given this situation, it was decided that the selection of States from among those remaining as viable candidates should be done purposively. Five criteria were used to select from this smaller number of States.

2. Geographic location. Locational variation serves as proxy for differing policies as well as economic diversity, different income levels, and demographic variation. Selection of a geographically diverse sample avoided the possibility of observing the effects of a regional or local shock, such as in an automotive strike, upon the entire sample of claimants.

Exhibit 2-1

States Which Used Weeks of Work
Attachment Definitions For UI Benefits
in 1976

Florida

Hawaii

Michigan

Minnesota

New Jersey

New York

Ohio

Oregon

Rhode Island

Utah

Vermont

Washington

Wisconsin

Wyoming

To establish maximum locational distribution and diversity, USR&E clustered the nine States into four geographic areas based on the four major Census regions:

- Northeast,
- South,
- North Central, and
- West.

3. Economic structure. The economic structure, including the composition of the manufacturing sector, has significant implications for unemployment insurance-related issues.

Two aspects of economic structure--overall economic structure and manufacturing composition--were considered. State economies were classified as "balanced" for each factor on the following basis:

- For overall economic structure, if the percentage of total nonagricultural employment in each of five major sectors (as defined by SIC codes) -- construction, manufacturing, trade, services and government -- were within 30% of comparable percentages for the United States economy.
- For manufacturing composition, if no one manufacturing sector (two-digit SIC code, SIC #19 through SIC #39) employed more than 25% of the total manufacturing work force.*

Choosing both "balanced" and "unbalanced" States led to a better approximation of national diversity using a small sample.

4. Unemployment rate. The State unemployment rate is correlated with the burden imposed upon the unemployment insurance system, and influences legislative initiatives to change policies and attachment measures. States were classified as having "high," "average" or "low" unemployment rates relative to the national average for the period January, 1974 - September, 1976.

*All data for economic structure, as for the other primary selection criteria, were for 1974 (except where noted) -- the latest year for which complete data were available.

5. Racial composition of the population. Because a determination of the effect of different labor force attachment definitions on eligibility for unemployment insurance benefits for minority workers is an important product of this study, States have been classified according to the percentage of the population which is non-white. Those States whose population of non-whites exceed 9% were categorized as "high non-white," and those with less than 5% were categorized as "low non-white."

6. Variation in number of weeks required. As we discuss later in this chapter, there are many factors which are potential sources of sample bias; among those contributing to bias are the number of weeks required to qualify for benefits. We have hypothesized that the harder the criterion of attachment is to meet, the fewer persons with very few weeks who will apply for benefits.

2.2.2 Applying the Criteria. Exhibit 2-2 on the following page summarizes the 5 measures by state. Utilizing these 5 criteria 5 groupings of States become apparent:

	<u>State(s) Included</u>	<u>Preferred Choice</u>
1. Northeastern Industrialized	New York	New York
2. Southern	Florida	Florida
3. North Central, Highly Industrialized	Michigan/Ohio	Michigan
4. North Central, Large Agricultural Sector	Minnesota/Wisconsin	Minnesota
5. Western	Oregon/Utah/Washington	Oregon

The choice between Minnesota and Wisconsin was made on the basis of Minnesota's computerized data access system. Ohio and Michigan exhibited several differences on the key selection criteria. On balance, however, it was determined that Michigan's less strict weeks of work eligibility requirement (14 weeks versus 20 weeks for Ohio) would permit analysis of the effect of variation in different attachment requirements on workers at the

Exhibit 2-2

Summary of Key Selection Criteria*

State	Geographic Location	<u>Economy**</u>		Non-white Population	Unemployment Rate	Attachment Measures	
		Overall Economic Structure	Industrial Composition			Weeks	Dollars
Florida	South	U	B	High	High	High	Low
Michigan	North Central	U	U	High	High	Low	Low
Minnesota	North Central	B	B	Low	Low	High	Average
Ohio	North Central	U	B	High	Average	High	Low
Oregon	West	B	U	Low	High	High	Average
New York	East	B	B	High	High	High	Average
Utah	West	U	B	Low	Low	High	Average
Washington	West	B	U	Low	High	Low	High
Wisconsin	North Central	B	B	Low	Low	Low	High

* See text for more detailed explanation.

** U = Unbalanced; B = Balanced.

margin (i.e., with less attachment). Oregon was selected because of its more lenient dollar qualifying requirements as well as the ease of data collection. Unfortunately, Florida chose not to participate.

2.2.3 The Weeks of Work Requirements for UI Eligibility in Sample States

The sample States selected exhibited a wide variation in their major monetary requirements for eligibility for unemployment insurance benefits during 1976 (our sample year).* Michigan required a minimum of 14 weeks of work during the base year with earnings of at least \$25.01 during each week to be counted towards eligibility.

Minnesota required a minimum of 18 "credit" weeks of work during the base year with earnings of at least \$30 during each week to be counted towards eligibility.**

New York required a minimum of 20 weeks of work during the base year, with average earnings over the base year of at least \$30 per week. Also, claimants with at least 15 weeks of work during the base year and at least 40 weeks of work during the last two years (again at an average of at least \$30 per week) could qualify for UI benefits.

In Oregon, to qualify for UI benefits, claimants had to work at least 18 weeks during the base year at an average of at least \$20 per week, with total earnings of at least \$700. Oregon was the only non-request reporting State of the four and its base year was based on calendar quarters.

*All information refers to the requirements in effect during July 1976.

**A "credit" week is a week of work for one employer. Thus, in Minnesota it is possible to accumulate more than one credit week per calendar week if one works for multiple employers during that calendar week and earns at least \$30 from each employer.

2.3 Claimant Sampling Design for Data Collection Within Each State

Our claimant sampling plan was based upon the following parameters:

- (1) The data were to be derived from four States: Michigan, Minnesota, New York and Oregon;
- (2) The sample would include claimants from the regular UI, UCFE, and UCX programs, but did not include claimants under the SUA program since it was a special, non-continuing program.
- (3) The sample would be stratified, with 1200 persons per State having worked twenty weeks or more in the base year, and at least 600 persons having less than twenty weeks of work.
- (4) The sample would include monetarily ineligible claimants, but would exclude, wherever possible, non-monetarily ineligible claimants.
- (5) The sample sizes would be chosen to reduce the confidence intervals to acceptable levels for both the individual State samples and any pooled data.
- (6) Sample claimants were to be selected on the basis of randomly selected social security numbers.

2.3.1 Rationale for Stratified Sampling

A sample of individuals is generally stratified along one or more characteristics for one major reason: if the strata are defined such that individuals are relatively homogeneous within the stratum, while there is considerable variation between strata, then stratified sampling will reduce the error variance. In most cases, decisions to stratify on this basis are made upon guesses or previous studies which suggest distinct differences between groups. For example, an examination of New York State data shows that less than three percent of those newly certified for benefits were under twenty years of age.* However, a much greater percentage of total unemployment is accounted for by teenagers.

*Employment Review, State of New York, March-April 1974, Vol. 27, No. 3-4, p. 78.

In some States such as New York and Minnesota, only a small number of those persons who actually apply for unemployment compensation benefits are usually found to be monetarily ineligible; that is, have insufficient weeks of work or wages. (An additional small number are ineligible for non-monetary reasons, such as being fired for cause.) If the sample was selected randomly without stratification, the fraction of those ineligible because of insufficient weeks and/or wages, was likely to be small in those States. Therefore it was initially decided to stratify on monetary eligibility criteria to increase the sample size among monetary ineligibles.

2.3.2 Definition of the Strata

Further consideration led to the decision to stratify the sample on weeks of work, with the break between the two strata being set at twenty weeks. The reasoning was as follows: first, 20 weeks is widely accepted in the literature as a reasonable measure of attachment. It corresponds, in theory, to one and one-half times high quarter earnings, or forty times the weekly benefit amount. These three criteria combined are used by a large number of States (nineteen). Additionally, it is unlikely that a substantially lower criterion would ever be widely adopted. If actual State eligibility requirements were used to define the strata, in Michigan one-third of our sample would have less than fourteen weeks of work and/or extremely low earnings. It is hard to conceive of potential variations in attachment requirements which would qualify these individuals. Thus, by stratifying with the break at 20 weeks of work, the study would maximize the opportunity to analyze the characteristics of claimants with 14-20 weeks of work -- the major group of interest given the current distribution of current State UI eligibility requirements.

Additionally, while this stratification does not guarantee that applicants will be distributed evenly over the entire range across States according to weeks of work, it does impose the

greatest uniformity in distribution of weeks of work on the sample. We are more likely statistically to be able to pool our results than we would be were each State's sample selection based upon specific State laws.

Finally, one has to tread a thin line between generality of results and bias. While dividing our strata into twenty or more weeks and less than twenty weeks will include some monetarily eligible persons in the latter stratum, using the alternative of State eligibility requirements adds nothing towards minimizing bias. This is because the population itself does not reflect the pool of unemployed, since many unemployed persons never apply.* Rather, the population to be sampled is comprised of persons who apply for benefits. By using a uniform stratification criterion, we hoped that the State samples would be reasonably statistically homogeneous.

2.3.3 Sample Size

In accordance with our goal of reducing the confidence intervals of our sample to acceptable levels, we adopted the following criteria to define our sample size for each State:

- (1) For persons who worked less than twenty weeks in covered employment, the ninety-five percent confidence limit for all four States around a mean, should be no greater than two percent on either side of the mean.
- (2) For those who worked twenty weeks or more, the confidence limit for a single State should not exceed three percent on either side of the mean.

*See Section 2.5 for a further discussion of this point.

Using the formula for the standard error of a sampled proportion:

$$s_p = \frac{p(1-p)}{n-1}$$

and the formula for a ninety-five percent confidence limit for a normal distribution:

$$\hat{p} - 1.96S_p \leq p \leq \hat{p} + 1.96S_p$$

where p is the true mean, S_p the standard error of the estimated mean, and \hat{p} the estimated proportion, we computed desired sample sizes. For those who worked less than twenty weeks, the size of the desired confidence interval implies a standard error is 1.02 percent. Using p equal to .5, which corresponds to the maximum standard error, we obtain:

$$.0102 = \frac{.25}{n-1}$$

or $n = 2403$.

This translates into a desired sample size of six hundred persons per State for this stratum. The second criterion gives us a desired sample of approximately 1,100 persons per State. We increased the size slightly to 1,200 claimants from each State who have worked at least twenty weeks in the benefit year.

It must be pointed out that substantial gains in precision from stratification are not realized when proportions are being estimated.* Unless the strata are extremely unlike each other, the increase in precision from stratified sampling is likely to

*Kish, Survey Sampling, Chapter 5.

be small. For other variables which can be expressed in other forms such as weeks or earnings, gains from stratification may be large. Since our concern was with estimates of weeks of eligibility as well as the characteristics of claimants eligible for benefits, the use of a stratified sample yielded substantial gains in the former case as well as giving reasonable increases in precision to subsample estimates.

2.4 Description of Data Collection Efforts, by State

Problems of availability and accessibility of data in the four States chosen for the study resulted in a number of deviations from our proposed sampling design. Each of these is summarized below.

In New York, no data were collected on the State's central files for claimants who do not actually collect benefits. Thus, some claimants who have satisfied monetary requirements but either returned to work within a week of their previous separation or who were disqualified on non-monetary grounds are not included in central State files. Since New York's eligibility requirement is twenty weeks of work, data for very few claimants with less than twenty weeks were available through the central files.* In cooperation with the State Department of Labor we drew our sample of monetarily ineligible claimants from six randomly selected local offices (where data was kept on these claimants). These claimants were selected by local office personnel according to instructions provided by USR&E. Also, our sample of eligible claimants in New York was larger than anticipated (1617 claimants) as a result of the computerized selection procedure.

In Michigan no information other than name, employer, and social security number was collected on centralized data files.

*Claimants who have worked only 15-19 weeks in the base year and at least 40 weeks in the last two years (prior to filing a claim) also may be eligible for UI benefits in New York.

Demographic and economic information for claimants had to be collected from the local offices. Cost and logistics considerations made it impossible to draw a sample of claimants similar to our sampling design. Therefore, we drew a random sample so as to include as many claimants as possible with less than twenty weeks of work (up to our maximum of 600). Since preliminary information indicated that between 10 and 20% of all claimants in the State worked less than twenty weeks, we drew a sample of 3000 claimants. Of the approximately 2400 responses received from the local offices, nearly 500 claimants (about 20% of our sample) had worked fewer than twenty weeks.

In Minnesota, information on "credit weeks" is collected in place of weeks of work. Since a credit week is defined as a week in which an employee earns at least the dollar minimum from one employer, multiple job holders may receive credit for more than one credit week per calendar week of work. This complicated our sample selection process and the sample selected had only 23.8% with less than 20 calendar weeks of work.

In Oregon we were able to achieve the goals of our sampling design without problems.

2.5 Sources of Bias in the Sample

There are several sources of bias in our sample which cause the distribution of the sample population not to resemble the entire labor force in the sample States, the total population of unemployed workers or, in some instances, the population of unemployment insurance claimants. Some of these biases were the result of conscious decisions on our part to exclude some groups for whom data were available, but most of these were the result of the nature of the data available from the unemployment insurance system. We have identified eight major sources of bias in addition to the stratified sampling scheme described above:

- Variance in State UI eligibility requirements. This in itself creates variation among the four State samples. It is believed that unemployment insurance laws are widely known and understood (see below); thus, the population which is ineligible and applies for benefits is likely either to have work experi-

ence close to the required minimum for benefits or to be unaware of the specifics of the program. The effect of this bias can be seen in a comparison of New York and Michigan, which represent extremes in our sample. Persons with fourteen to nineteen weeks of work in the base year are very different in these two States, since in Michigan they qualify for benefits while in New York they do not. Thus, estimates of the impacts of changing requirements can be biased for each individual State, although they may not necessarily be for the combined population.

- Persons who are ineligible for benefits. The sample is biased toward unemployment insurance-eligible unemployed workers for two reasons: (1) unemployment insurance eligibility rules are widely known and understood; thus, many who are monetarily ineligible do not bother to file a claim; (2) claims takers in some States or local offices do not complete applications for those who are obviously monetarily ineligible. For these reasons our population of non-eligibles in each State probably does not reflect the true distribution of the covered unemployed but is biased toward those who have nearly enough weeks of work to qualify. Since ineligibles are generally less well-educated, work in less stable, lower-paying occupations and are younger, the effect of this bias is to underrepresent such members of the labor market.
- Non-monetary ineligibles. This group of unemployed persons has been excluded from our sample because a determination of their eligibility was based upon non-monetary qualifications in each State. Since these rules vary from State to State, the exact composition of the sample varies. Because we do not know if or how the characteristics of non-monetary ineligibles differ substantially from eligible claimants, it is difficult to determine the effect on our sample.
- People unaware of the unemployment insurance program. Those who do not understand or are not aware of their rights under the unemployment insurance program may never file for benefits. Thus, the sample will exclude this segment of the unemployment insurance-eligible unemployed population. However, since knowledge of the unemployment insurance program is believed to be widespread, this should be a minor problem, with the possible exception of those States, such as New York, where the large Spanish-speaking population may be less aware of the program as a result of

language barriers. The direction of this bias, then, would probably be toward the non-Spanish and better educated. There may also be a bias toward older workers and males who are perhaps more aware of the unemployment insurance program through greater job market experience.

- Unemployment insurance-eligible workers who do not file claims. For a variety of reasons some people do not file for unemployment insurance. These people generally fall into four categories: (1) those who do not file because they are opposed to the concept of unemployment insurance, (2) those who do not file because they incorrectly view the unemployment insurance program as a welfare program and they are opposed to the concept of welfare, (3) those who are not opposed to unemployment insurance but delay filing a claim for some reason and are subsequently re-employed shortly thereafter, (4) those (especially among poorer women) who elect to receive welfare benefits in place of unemployment insurance benefits because the former provides higher incomes. Our sample excludes these groups. Because it is not known how the population of unemployment insurance eligibles who do not file a claim is different from the population of unemployment insurance eligibles who do file, the effect of this bias is unclear.
- People who work in "traditionally" uncovered occupations. We have chosen not to include those claimants eligible under the Special Unemployment Assistance (SUA) program in our sample because of sampling problems. The sample includes, therefore, only those persons who are covered for unemployment insurance by State laws. To the extent that the State programs will be expanded in 1978 to include those now covered under SUA, the sample is biased for the purposes of policy recommendations.
- Restriction to persons who are unemployed. Our sample includes only those who file an initial claim for unemployment insurance at some time during 1976.* To the extent that those who were unemployed at some time during the year are not similar to the demographic or occupational composition of the labor force, our sample is unrepresentative of this latter group.

*Thus, the sample excludes those who filed an initial claim during 1975 and who become unemployed during 1976, collecting benefits on the basis of the benefit year established at the time of the 1975 claim.

- Commuters. The sample includes only State "liable" claimants. Therefore those who live out-of-State and commute in to jobs are included, while those who live in the sample State and commute to another State for work are excluded. The sample also includes claimants who worked in the State and subsequently moved to another State and filed for benefits partly or wholly on the basis of their earnings at their former State of residence. The only State where this effect is substantial is New York as a result of commutation patterns to New York City. Since commuters into the city may contain a higher percentage of white collar workers (who tend to be better-educated and white), our sample may be slightly biased toward white-collar workers. The bias would tend to be slight because white-collar workers have lower than average unemployment rates.

There exist at least two less important sources of bias. Since many retired people collect unemployment benefits but are not attached to the labor force in the traditional sense (because they are not actively seeking work), the sample may include older workers who are not truly in the labor market according to State laws. Finally, the sample from New York excludes those who are monetarily eligible but never receive a check -- usually because they were re-employed during their waiting week. The statistical effect of this exclusion is unknown.

Finally to the extent that UI claimants in 1976 are unrepresentative of UI claimants in other years, our results are biased for the purposes of policy recommendations. The extent and direction(s) of this bias are unknown.

2.6 Effects of Bias in the Sample

The sources of bias in our sample will all affect extrapolation of results to the population at large as well as to the population of unemployed. The degree and direction of these effects is, cumulatively, difficult to predict. Some of the observed differences between the States can be attributed to bias and may indicate how much of an effect the difference in the number of weeks required to qualify has upon the eligible popu-

lation. Some of the sources of bias are of only academic interest, since certain groups will never be covered for benefits, i.e., those with less than 13 or 14 weeks are not likely to be considered for eligibility for unemployment insurance benefits, so that their omission, while biasing the sample, does not bias our conclusions.

Since we cannot effectively measure bias within the limits of our data base, we must be content with noting whether bias in the sample is likely to affect results.

One very definite implication of the biases that do exist is that adjusting the sample results in the three States where a stratified sample was drawn (Minnesota, New York and Oregon) to reflect the population of unemployment insurance claimants will not produce results that are valid for the population of unemployed persons. This conclusion is mainly the result of the finding that the stringency of the UI benefit eligibility requirement defines to some extent the population of claimants. Thus, fewer persons with less than 20 weeks of work in the base year are likely to file a claim if the UI benefit eligibility requirement is 20 weeks of work than if it is 16 weeks of work. In addition, fewer persons with less than 16 weeks of work in the base year are likely to file a claim if the UI benefit eligibility requirement is 16 weeks of work than if it is 13 or 14 weeks of work.

For this reason, extrapolating the results in this report--and Chapter 4 in particular--to the population of unemployed in general (or even the potential population of all UI claimants in each State--i.e., those with work experience in covered industries) may be misleading to some extent, since decreasing a UI benefit eligibility requirement may in practice have a larger effect than is noted (since a larger percentage of claimants with fewer weeks of work would be encouraged to file a claim). The magnitude of the impact of this effect is unknown.

2.7 Presentation of Findings in Chapter 3 Through 5

Except where noted, all results in Chapters 3 through 5 have been reweighted to reflect the actual distribution of claimants, by weeks of work, in the State.* Reweighting was not necessary for results in Michigan since a random sample was drawn and was not possible in Minnesota, since the State collects only credit weeks and has not studied the distribution of calendar weeks of work among unemployment insurance claimants.

For Oregon the factors which were used to convert the results of our stratified sample to results which reflected the actual distribution of claimants were supplied through the State's continuous wage benefit history (CWBH) program. CWBH data indicate that:

- 15.9% of all claimants who filed for benefits in 1976 had less than 20 weeks of work in the base year, and
- 84.1% of all claimants who filed for benefits in 1976 had 20 or more weeks of work in the base year.

The derivation of proper weighting factors in New York was somewhat more complicated. From State data, it was determined that about 90.25% of all claimants in New York who file for benefits were monetarily eligible. However, about 96.7% of all the sample of monetarily eligible claimants drawn for this study actually had 20 or more weeks of work. Therefore, the final weighting factors used for New York were:

- 87.3% (equals 96.7% of 90.25%) of all claimants who filed for benefits had more than 20 weeks of work in the base year,
- 12.7% of all claimants who filed for benefits had less than twenty weeks of work.

*Except as noted, the raw data in the Appendices to this study have not been reweighted.

CHAPTER 3

DESCRIPTION OF THE DATA FROM EACH STATE

3.1 Introduction and Overview

The first step in an analysis of any data base is the calculation of descriptive statistics. These enable us to summarize the characteristics of the sample(s). Exhibits 3-1 through 3-4 contain the descriptive statistics for the claimant sample for the four sample States. Because a stratified sample was drawn in three of the four States--Minnesota, New York, and Oregon--and reweighting was not possible in Minnesota,* the statistics for claimants who worked less than 20 weeks in the base year are presented separately from the statistics for those who worked 20 or more weeks during the base year. This serves two purposes:

- (1) It allows unbiased comparisons of claimants in each weeks of work group across all four of the sample States.
- (2) It provides some insight into differences between workers with different work experience (measured by length of employment during the base year).

*See Chapter 2 for further detail on the issues of reweighting the data.

Exhibit 3-1

Characteristics of Michigan Claimants by
Percent of Each Weeks of Work Group

<u>Characteristic</u>	<u>Weeks of Work</u>		
	<u>< 20 Weeks</u>	<u>≥ 20 Weeks</u>	<u>Total for State*</u>
<u>Sex</u>			
Male	61.7	67.5	66.7
Female	38.3	32.5	33.3
<u>Race or Ethnic Group</u>			
White	83.6	79.5	80.3
Black	8.4	6.5	6.9
Other or NS	8.0	13.6	12.8
<u>Age (in years)</u>			
< 20	4.8	1.2	2.0
20-24	16.0	10.1	11.2
25-34	31.8	28.1	28.8
35-44	20.2	20.6	20.5
45-54	15.2	21.9	20.5
55-64	9.9	14.4	13.5
65+	2.1	3.7	3.4
<u>Education (in years)</u>			
0-7	17.3	19.1	18.8
8	4.6	6.0	5.7
9-11	11.4	12.9	12.6
12	35.8	29.7	30.9
13-15	15.6	14.5	14.7
16+	15.4	17.8	17.3
<u>Occupation**</u>			
Professional	7.2	8.9	8.6
Technical	5.9	6.4	6.3
Managerial	6.3	10.0	9.3
Clerical	10.1	10.0	10.0
Sales	5.3	5.4	5.4
Blue Collar	50.1	46.7	47.4
Farm	1.1	1.5	1.4
Services	12.4	9.3	9.9
Private Household	0.2	0.1	0.1
Not Specified	1.5	1.6	1.6
<u>Industry***</u>			
Other, Missing	7.2	4.0	4.6
Construction	13.9	7.9	9.1
Non-Durables	5.7	7.0	6.7
Durables	19.8	30.5	28.4
Transportation	5.5	4.6	4.8
Trade	19.2	16.7	17.2
Finance	1.7	2.1	2.0
Services	22.5	21.2	21.5
Government	4.6	5.9	5.6
<u>Average Weekly Wage</u>			
≤ \$50	25.3	18.5	19.8
\$51-100	17.1	8.7	10.4
\$101-150	15.6	12.8	13.4
\$151-200	12.4	14.7	14.3
> \$200	29.3	45.3	42.1

*Data reflects actual distribution of UI claimants by weeks of work.

**Occupation in all chapters is reported by major groupings as categorized in the Dictionary of Occupational Titles (DOT).

***Industry of employment in all chapters is reported by major SIC groupings.

Exhibit 3-2

Characteristics of Minnesota Claimants by
Percent of Each Weeks of Work Group

<u>Characteristic</u>	<u>Weeks of Work</u>		<u>Total for State*</u>
	<u>< 20 Weeks</u>	<u>≥ 20 Weeks</u>	
<u>Sex</u>			
Male	69.9	64.0	66.7
Female	30.1	36.0	33.3
<u>Age (in years)</u>			
< 20	22.1	10.1	13.0
20-24	25.3	18.7	20.3
25-34	25.5	37.6	34.7
35-44	9.5	13.6	12.6
45-54	9.2	9.9	9.7
55-64	7.1	9.6	9.0
65+	1.2	0.6	0.8
<u>Education (in years)</u>			
0-7	10.5	3.8	5.4
8	6.1	6.2	6.2
9-11	18.3	12.4	13.8
12	43.3	54.1	51.5
13-15	16.8	15.6	15.9
16+	5.1	7.9	7.3
<u>Occupation</u>			
Professional	4.6	3.9	4.1
Technical	14.4	9.7	10.8
Managerial	2.2	4.6	4.0
Clerical	7.3	9.2	8.7
Sales	4.9	5.7	5.5
Blue Collar	54.0	57.6	56.8
Farm	1.7	1.4	1.5
Services	9.7	7.6	8.1
Private Household	1.2	0.4	0.6
<u>Industry</u>			
Other, Missing	9.7	5.6	6.6
Construction	16.3	21.2	20.1
Non-Durables	11.4	12.9	12.5
Durables	13.1	14.9	14.5
Transportation	4.1	3.4	3.6
Trade	21.7	20.0	20.4
Finance	1.9	2.0	2.0
Services	19.7	17.4	18.0
Government	1.9	2.7	2.6
<u>Average Weekly Wage</u>			
< \$50	31.2	8.8	14.1
\$51-100	20.2	17.0	17.8
\$101-150	17.5	21.4	20.5
\$151-200	9.3	18.6	16.3
> \$200	21.9	34.1	31.3
<u>Total Base Year Wages</u>			
\$0-500	20.0	1.8	6.2
\$501-1000	10.0	1.7	3.7
\$1001-2000	25.5	7.4	11.7
\$2001-3000	12.9	9.3	10.2
\$3001-5000	16.3	16.9	16.8
\$5001-9000	11.9	30.2	25.8
\$9001-15,000	2.7	23.3	18.4
\$15,001-20,000	0.7	6.8	5.4
> \$20,000	0.0	2.6	2.0

*Data is not reweighted but reflects actual distribution of total State sample. Reweighting was not possible for this State.

Exhibit 3-3

Characteristics of New York Claimants by
Percent of Each Weeks of Work Group

<u>Characteristic</u>	<u>Weeks of Work</u>		
	<u>< 20 Weeks</u>	<u>≥ 20 Weeks</u>	<u>Total for State*</u>
<u>Sex</u>			
Male	52.5	58.0	57.3
Female	47.5	42.0	42.7
<u>Race or Ethnic Group</u>			
White	77.3	79.7	79.4
Black	11.2	9.4	9.6
Spanish	6.7	7.4	7.4
Other or NS	4.8	3.7	3.8
<u>Age (in years)</u>			
< 20	9.4	6.7	7.0
20-24	19.4	17.6	17.9
25-34	21.9	23.5	23.3
35-44	11.8	18.4	17.6
45-54	15.6	16.6	16.5
55-64	14.7	14.3	14.4
65+	7.3	2.8	3.3
<u>Education (in years)</u>			
0-7	14.2	7.8	8.6
8	11.3	9.8	10.0
9-11	23.3	20.2	20.6
12	33.8	40.9	40.0
13-15	10.2	14.5	14.0
16+	7.3	6.6	6.7
<u>Occupation</u>			
Professional	5.6	6.0	5.9
Technical	0.6	1.9	1.8
Managerial	1.4	4.4	4.0
Clerical	12.1	14.3	14.0
Sales	3.6	4.8	4.7
Blue Collar	61.7	56.0	56.7
Farm, Not Specified	1.8	0.3	0.5
Services	11.5	12.2	12.2
Private Household	1.7	0.3	0.5
<u>Industry</u>			
Other, Missing	16.6	7.9	9.0
Construction	8.8	11.3	11.0
Manufacturing	36.8	31.0	31.8
Transportation	2.9	5.3	5.0
Trade	16.0	20.0	19.5
Finance	3.9	3.4	3.5
Services	14.8	20.0	19.4
Government	0.2	1.0	0.9
<u>Average Weekly Wage</u>			
≤ \$50	11.8	2.6	3.8
\$51-100	24.2	17.9	18.7
\$101-150	25.4	24.5	24.6
\$151-200	15.6	22.0	21.2
> \$200	23.0	33.1	31.8
<u>Total Base Year Wages</u>			
\$0-500	12.6	0.1	1.7
\$501-1000	14.4	0.7	2.4
\$1001-2000	28.2	5.7	8.6
\$2001-3000	21.9	10.1	11.6
\$3001-5000	17.7	22.2	21.6
\$5001-9000	4.9	32.0	28.5
\$9001-15,000	0.3	22.3	19.5
\$15,001-20,000	--	4.4	3.8
> \$20,000	--	2.5	2.2

*Data is reweighted to reflect distribution by weeks of work of State UI claimant population.

Exhibit 3-4

Characteristics of Oregon Claimants by
Percent of Each Weeks of Work Group*

<u>Characteristic</u>	<u>Weeks of Work</u>		<u>Total for State*</u>
	<u>< 20 Weeks</u>	<u>> 20 Weeks</u>	
<u>Sex</u>			
Male	62.4	63.5	63.3
Female	37.6	36.5	36.7
<u>Age (in years)</u>			
< 20	12.9	6.0	7.1
20-24	28.0	24.5	25.0
25-34	31.3	32.8	32.6
35-44	10.5	13.8	13.3
45-54	9.0	12.0	11.5
55-64	5.6	9.0	8.5
65+	2.8	1.9	2.0
<u>Occupation</u>			
Professional	3.6	4.4	4.3
Technical	0.7	1.0	0.9
Managerial	4.6	4.2	4.2
Clerical	11.5	10.9	11.0
Sales	5.2	5.6	5.5
Blue Collar	58.9	58.4	58.5
Farm	2.9	2.3	2.4
Services	12.3	12.8	12.8
Private Household	0.3	0.3	0.3
<u>Industry</u>			
Other	2.1	1.0	1.1
Construction	5.9	11.7	10.7
Non-Durables	13.1	11.1	11.4
Durables	11.9	23.9	22.0
Transportation	1.8	4.5	4.1
Trade	24.1	24.0	24.0
Finance	1.3	2.6	2.4
Services	15.4	17.7	17.3
Government	1.5	3.5	3.1
Not Specified	22.9	0.1	3.7
<u>Average Weekly Wage</u>			
< \$50	35.0	3.1	8.2
\$51-100	30.6	20.1	21.8
\$101-150	20.3	25.3	24.5
\$151-200	7.0	19.1	17.2
> \$200	7.0	32.5	28.4
<u>Total Base Year Wages</u>			
\$0-500	41.1	0.0	6.5
\$501-1000	15.9	0.7	3.1
\$1001-2000	23.1	6.9	9.5
\$2001-3000	10.3	11.1	10.9
\$3001-5000	7.0	21.0	18.8
\$5001-9000	2.5	34.0	29.0
\$9001-15,000	0.2	24.7	20.8
\$15,001-20,000	--	1.5	1.3
> \$20,000	--	--	--

*Data is reweighted to reflect distribution by weeks of work
of State UI claimant population.

3.2 Demographic Descriptors

Sex

Males dominate as unemployment insurance claimants in all four States, although this difference is less pronounced in New York. In two of the four States, the percentage of claimants that are male increases substantially from the less than 20 weeks of work group to the 20 or more weeks of work group, indicating greater attachment (measured by weeks of work) among males. However, in Oregon the percent males is approximately constant between the two groups, while in Minnesota it decreases substantially (indicating greater levels of attachment exhibited by female UI claimants in that State).

Race or Ethnic Group

The Oregon and Minnesota samples consisted almost entirely of whites. In both Michigan and New York, the percentage of all claimants who were black decreased slightly from the lower weeks of work group to the higher. New York was the only State with a significant number of Spanish-surnamed claimants. The percent Spanish in each weeks of work group (<20 weeks versus >20 weeks) remained approximately constant.

Age

The median age for all claimants from Oregon and Minnesota was substantially below that for New York and Michigan--both within each of the two attachment groupings and, by inference, for the sample as a whole. For all States except New York, those claimants with less than 20 weeks of work were substantially younger than those with 20 or more weeks of work. In New York the age differential was very slight although among those with less than 20 weeks of work there were both more younger claimants (under 25 years of age) and more older claimants (65 years of age or over) than among claimants with 20 or more weeks of work.

Education

Information on education was available for only three States. In Minnesota and New York the group with 20 weeks of work or more exhibited much higher educational levels than those with less than 20 weeks of work. In Michigan those with less education demonstrated slightly higher levels of base year attachment.

3.3 Economic Descriptors

Weeks of Work

Exhibits 3-5 and 3-6 present information on the distribution of claimants by weeks of work for this study. In Exhibit 3-5 the raw data is presented by weeks worked for all four States. In Exhibit 3-6, the data, by the same weeks worked, is presented reweighted to reflect the true distribution of that State's UI population.

In reviewing these exhibits, it should be noted that:

- The weeks of work distribution for Michigan is the same in both exhibits. Since a random sample was drawn in Michigan, no reweighting was necessary.
- Exhibit 3-6 contains no information for Minnesota because no reweighting was possible in that State.*

Industry of Employment

Data on industry of employment for the UI claimants in our sample are presented in Exhibit 3-7 below. Data from New York, Michigan, and Minnesota, represent the industry of the last employer, while those data from Oregon represent the industry paying the largest percentage of the base year wages.

In reviewing rates of overall demonstrated attachment, workers in durable manufacturing goods and government sectors tended to exhibit somewhat greater attachment levels than average. No clear patterns emerged for the other sectors.

*See Chapter 2 for further detail on reweighting.

Exhibit 3-8 contains a comparison of the proportion of industry of employment data for the UI claimants in our sample with those in the State's overall labor force. Such comparisons are only meaningful when reweighted data is available for the UI claimant sample. Since such data are not available for Minnesota, the exhibit contains data on Michigan, New York, and Oregon only.

As is illustrated in the exhibit, in all three States, workers from the construction and manufacturing sectors are much more likely to be UI claimants than their proportion of the State labor force would suggest. On the other hand, in all three States, workers from the government and finance sectors are much less likely to be UI claimants. The finding for government workers is not unexpected since many local government workers were not covered through the regular State UI programs in 1976.

Exhibit 3-5

Distribution of Weeks Worked Among Sample Claimants (Raw Data)*

<u>Number of Weeks</u>	<u>Michigan</u>	<u>Minnesota</u>	<u>New York</u>	<u>Oregon</u>
0-13	8.6% (8.6%)	13.0%(13.0%)	11.0%(11.0%)	19.4%(19.4%)
14-15	4.2%(12.8%)	1.5%(14.5%)	5.4%(16.4%)	1.3%(20.7%)
16-19	7.2%(20.0%)	9.3%(23.8%)	12.7%(29.1%)	12.3%(33.0%)
20-25	8.8%(28.8%)	9.0%(32.8%)	12.2%(41.3%)	10.0%(43.0%)
26-30	7.2%(36.0%)	8.3%(41.1%)	7.7%(49.0%)	8.6%(51.6%)
31-40	63.9%** (99.9%)	12.8%(53.9%)	14.8%(63.8%)	16.1%(67.7%)
41-47		8.9%(62.8%)	12.5%(76.3%)	10.7%(78.4%)
48-52		37.2%(100.0%)	23.7%(100.0%)	21.5%(99.9%)

*Cumulative percentage in parentheses for each State

**Michigan collects weeks of work only to a maximum of 35 weeks

Exhibit 3-6

Distribution of Weeks Worked Among Sample Claimants,
Reweight to Reflect Actual State Distribution of Claimants

<u>Number of Weeks</u>	<u>Michigan</u>	<u>Minnesota</u>	<u>New York</u>	<u>Oregon</u>
0-13	8.6% (8.6%)	NA	4.8%(4.8%)	9.3%(9.3%)
14-15	4.2%(12.8%)	NA	2.4%(7.2%)	0.6%(9.9%)
16-19	7.2%(20.0%)	NA	5.5%(12.7%)	5.9%(15.8%)
20-25	8.8%(28.8%)	NA	15.0%(27.7%)	12.5%(28.3%)
26-30	7.2%(36.0%)	NA	9.5%(37.2%)	10.9%(39.2%)
31-40	63.9%(99.9%)	NA	18.2%(55.4%)	20.3%(59.5%)
41-47		NA	15.4%(70.8%)	13.5%(73.0%)
48-52		NA	29.2%(100.0%)	27.0%(100.0%)

NA = Not available.

Exhibit 3-7

Non-Agricultural Employment by Sector for UI Claimants

	<u>Michigan</u>	<u>New York*</u>	<u>Oregon*</u>	<u>Minnesota**</u>
Construction	9.6	12.1	11.2	14.3
Manufacturing	36.8	34.9	35.1	30.9
Transportation, Communications, & Utilities	5.0	5.5	4.3	4.3
Trade	18.0	21.4	25.2	23.7
Finance	2.1	3.8	2.5	2.6
Services	22.5	21.3	18.2	21.6
Government	5.9	1.0	3.3	3.0

*Rewighted data. These figures are also adjusted to exclude "Missing", "Other", and "Not Specified" categories. Reweighting was not necessary in Michigan.

**Raw data, not reweighted to reflect true weeks of work, distribution for the population of State UI claimants.

Exhibit 3-8

Comparisons of UI Claimants and State
Labor Force in New York, Oregon and Michigan*

	<u>New York</u>		<u>Oregon</u>		<u>Michigan</u>	
	Labor Force	UI Claim- ants	Labor Force	UI	Labor Force	UI Claim- ants
Construction	3.7%	12.1%	4.7%	11.2%	3.8%	9.6%
Manufacturing	22.3%	34.9%	23.6%	35.1%	34.0%	36.8%
Transportation, Communication, & Utilities	6.5%	5.5%	6.3%	4.3%	4.7%	5.0%
Trade	20.4%	21.4%	23.2%	25.2%	20.4%	18.0%
Finance	8.3%	3.8%	5.3%	2.5%	4.0%	2.1%
Services	20.5%	21.3%	16.8%	18.2%	16.0%	22.5%
Government	18.5%	1.0%	19.9%	3.3%	17.1%	5.9%

*Labor force data is from 1974.

Chapter 4

IMPACT OF ALTERNATIVE DEFINITIONS OF ATTACHMENT

4.1 Introduction and Overview

The four major definitions of labor force attachment currently used by the States to determine eligibility for unemployment insurance benefits have been described previously. They include:

- weeks of work (varying between fourteen weeks of work in Michigan as the minimum to twenty weeks of work in several States, including New York);
- multiples of weekly benefit amount (usually thirty to forty times weekly benefit amount -- WBA);
- multiples of high quarter earnings (varying from one and one quarter times high quarter earnings -- HQE -- to one and one half times HQE); and
- flat minimum earnings.

This chapter presents the highlights of the simulation of the effects of using alternative definitions of labor force attachment upon eligibility for unemployment insurance benefits. Several assumptions were made in the analysis. In recent years, the flat minimum earnings requirement has lost favor. Therefore,

*The benefit amounts used in this study range up to the maximum benefit amount in force in the States at the time this study was conducted. For Minnesota, this was \$113, for New York \$95, for Oregon \$102.

this definition was not used to determine its effects upon eligibility as an alternative to weeks of work

Secondly, although most States attach certain earnings minimums to each of the other 3 types of requirements, we did not do so on a systematic basis in order to control data processing costs. (Testing various financial requirements in combination with each type and stringency level of qualifying requirement would have been prohibitively expensive.) However, Section 4.4 discusses the impact of some typical financial requirements on qualifying rates.

Finally, not all of the three remaining attachment definitions could be tested in each of the four sample States. The availability of starting and ending dates for each employer in Minnesota allowed us to calculate quarterly wages for every sample claimant.* In Oregon, information on employment for unemployment insurance claimants is routinely collected on the basis of calendar quarters. Thus, for these two States it was possible to carry out an analysis of the effects of moving to a multiple of high quarter earnings criterion for eligibility.

Total wages and average weekly wages for the base year were available for Minnesota, New York and Oregon, so that a multiple of weekly benefit amount analysis could be conducted for these three States.** Information from Michigan was not sufficient for this analysis since (a) average weekly wage was available for only the last job, and (b) only thirty-five weeks of work was reported even if the number of weeks in the base year exceeded thirty-five. Thus, for those with two or more jobs, no precise average weekly wage was determined. For the purposes of this analysis, the weekly benefit amount was assumed to be fifty percent of the average weekly wage (up to the State maximum then in force).

*The quarters calculated were based on breaking down each claimant's base year into quarterly segments of ninety-one or ninety-two days each.

**The weekly benefit analysis conducted in New York was not based on quarterly wages but on actual average weekly wage data obtained for each claimant.

Finally, since all four States collected weeks of work, alternative weeks of work attachment requirements could be examined for each State.

Overall, the multiple of weekly benefit amount and multiple of high quarter earnings definitions permit roughly the same number of UI claimants to "pass through the gate" as compared to the "equivalent" weeks of work definitions. However, compared to weeks of work, the multiple of weekly benefit amount definition singles out claimants with weekly wages over \$200 for favorable treatment. The multiple of high quarter earnings definition is a less accurate measurement of attachment than weeks of work, except at the twenty-six weeks (or greater) equivalent, which is more stringent than is ever likely to be adopted. However, the multiple of high quarter earnings definition is more acceptable than the multiple of weekly benefit amount definition since it does not favor high weekly wage claimants.

In summary, no matter what definition is used, being young and in low-wage and unskilled occupations implies that qualification for benefits is less likely. Using multiples of weekly benefit amount to describe labor market attachment discriminates most against the low income worker, favoring the high wage worker with fewer weeks of work. The imposition of minimum earnings requirements in conjunction with other attachment definitions had a relatively minor impact, except in Michigan.

4.2 Measuring the Effects of Alternative Definitions of Attachment Across All States

Each major variant of a definition of labor force attachment was tested using several alternative requirements. The specific requirements compared were selected to facilitate cross-definitional analyses. Exhibit 4-1 presents the requirements for attachment that were selected. The weeks of work requirements were selected to correspond to the minimum, "median" and maximum weeks of work definitions now in use--fourteen, sixteen and

Exhibit 4-1: Alternative Definitions and Requirements
Selected for Testing

Labor Force Attachment Definition

	<u>Weeks of Work</u>	<u>Multiple HQE</u>	<u>Multiple WBA</u>
	14	--	
Minimum	16	1.25 (16.25) *	30 (15) *
Requirements	20	1.50 (19.5) *	40 (20) *
	26	2.00 (26.0) *	50 (25) *

*Theoretically equivalent weeks of work are presented in parentheses.

twenty weeks of work respectively. To analyze the impact of a much more restrictive UI definition than that currently in force in any State, a requirement of twenty-six weeks of work was also chosen.

The multiples of high quarter earnings (HQE) and weekly benefit amounts (WBA) included in our study were selected primarily because they represented the best theoretical equivalents to the weeks of work measures:

- 1.25 times HQE,
- 1.50 times HQE,
- 2.00 times HQE,
- 30 times WBA,
- 40 times WBA, and
- 50 times WBA.

The approximate weeks of work equivalent for the multiple requirements for eligibility are noted in Exhibit 4-1. To simplify the analysis, a weekly benefit amount of 50% of the average weekly wage (up to the maximum weekly benefit amount used in each respective State during 1976) was used for eligibility test purposes in this report. No multiple of high quarter earnings definition equivalent to fourteen weeks of work was tested because such a definition (about 1.0 times HQE) would be functionally meaningless for anyone with any work experience. The multiple of thirty times the weekly benefit amount is sufficiently close to both fourteen and sixteen weeks of work that specification of another WBA multiple in this range was not deemed necessary.

For each of these alternative definitions of attachment, a comparative analysis was conducted for each State to determine the impact of each of the alternative attachment requirements on eligibility for unemployment insurance benefits. The analysis also reviewed impact across a number of relevant demographic and economic descriptors to identify these characteristics of the impacted claimants.

It should be emphasized here that, for these and all subsequent impact analyses, the percent that qualify for benefits is not an indication of how the total insured unemployment population in that State would fare, but rather is an indication of how those who currently file for benefits would fare under the alternative requirements.* In the following sections we discuss the impact of the alternative requirements on the various demographic and economic descriptors of the claimant sample. Exhibits for each of these variables may be found in the Appendix D to this report.

4.2.1 General Comparisons of the Three Eligibility Requirements

Direct quantitative interstate comparisons of the data were not possible because the samples were selected differently by each State. However, numerous qualitative comparisons are possible and suggest several important conclusions.

For all the States, increasing the weeks of work requirement from fourteen to sixteen weeks had much less impact on disqualification than increasing any of the eligibility definitions beyond that point. Up through twenty weeks of work (i.e., for fourteen, sixteen and twenty weeks of work) the weeks of work definition was slightly more exclusionary than either the multiple of weekly benefit amount or multiple of high quarter earnings definition. This relationship held regardless of the demographic or economic parameters being examined.

At a requirement equal or equivalent to twenty-six weeks of work, the multiple of high quarter earnings and the weeks of work definitions qualified fewer persons than the multiple of weekly benefit amount definition, which was, in all three States where it was tested, the least exclusionary.**

*See also Chapter 2, "Sources of Bias." Note that percentages for Minnesota do not reflect the population of claim filers because reweighting the stratified sample was not possible in that State.

**See Appendix D for further details on this point.

Furthermore, all three kinds of definitions excluded almost all those with less than two quarters of work, even at the lowest levels of labor market attachment. This is important because those workers with only one quarter of work experience over the year preceding their claim would seem not to have satisfied these States' expressed desire to limit unemployment insurance eligibility to those workers who have recently demonstrated substantial attachment to the labor force. Since a calendar quarter is thirteen weeks in duration, even the minimum eligibility requirement of fourteen weeks of work (probably the lowest feasible limit for this definition) will require more than one quarter of work. The multiple of high quarter earnings requirement, by definition, satisfies the desire to limit unemployment insurance to those with more than one quarter of work (although, in theory, even at the most stringent level treated in this report, it could be satisfied by just two weeks of work and sufficient wages). Finally, the multiple of weekly benefit amount does not completely fulfill the two quarters of employment or more requirement, since, as occurred in Minnesota, a claimant with very high wages over a relatively short period could qualify for benefits with work in only one quarter.

As Exhibits 4-2 and 4-3 show the multiple of high quarter earnings definition does not simulate weeks of work very well for the individual claimant. At less than 26 weeks of work, for a significant number of claimants, weeks of work may be overstated using this proxy measure. Exhibit 4-4 provides further supporting evidence. As it shows, 3.9% of all Oregon claimants with less than 14 weeks of work would be eligible under a multiple of high quarter earnings test of 2.0 while only 59.4% of claimants with 26-30 weeks of work during the base year were eligible. Similar figures were recorded in Minnesota.

Exhibits 4-8, 4-10, and 4-12 show that the multiple of weekly benefit amounts tests were even more favorable in the aggregate to those claimants with less than twenty weeks of work than the multiple of high quarter earnings test. However,

Exhibit 4-2: Weeks of Work Estimated by Multiple of HQE Category* in Minnesota

<u>Actual Weeks of Work</u>	<u>Actual Weeks of Work Overestimated</u>	<u>Actual Weeks of Work Correctly Estimated</u>	<u>Actual Weeks of Work Underestimated</u>
0	1.5%**	98.5%	--
1-13	35.9%	61.2%	2.9%
14-15	61.5%	38.5%	--
16-19	35.3%	64.7%	--
20-25	20.5%	67.3%	12.2%
26-30	6.3%	75.0%	18.8%
31-40	10.5%	65.0%	24.5%
41-47	11.4%	50.3%	38.3%
48-58	--	78.2%	21.8%

*The following multiple of high quarter earnings (HQE) were used:

- 0 x HQE (theoretically equivalent to 0 weeks of work)
- 1.0 x HQE (13 weeks of work)
- 1.0-1.24 x HQE (13-16.25 weeks of work)
- 1.25-1.49 x HQE (16.25-19.5 weeks of work)
- 1.50-1.74 x HQE (19.5-22.75 weeks of work)
- 1.75-2.00 x HQE (22.75-26 weeks of work)
- 2.00-2.49 x HQE (26-32.5 weeks of work)
- 2.50-2.99 x HQE (32.5-39 weeks of work)
- 3.00-3.49 x HQE (39-45.5 weeks of work)
- ≥ 3.50 x HQE (≥ 45.5 weeks of work)

**Probably caused by a typographical error in the data entry.

Exhibit 4-3: Weeks of Work Estimated by Multiple of High Quarter Earnings Category* in Oregon

<u>Actual Weeks of Work</u>	<u>Actual Weeks of Work Overestimated</u>	<u>Actual Weeks of Work Correctly Estimated</u>	<u>Actual Weeks of Work Underestimated</u>
0	--	100.0%	--
1-13	45.3%	54.7%	--
14-15	66.7%	33.3%	--
16-19	39.9%	47.4%	17.7%
20-25	27.6%	58.4%	14.1%
26-30	13.8%	59.4%	26.9%
31-40	4.7%	48.8%	46.5%
41-47	4.0%	33.8%	62.1%
48-52	--	52.6%	47.4%

*See Exhibit 4-2 for multiple of high quarter earnings categories used.

Exhibit 4-4: Oregon: Percent in Each Weeks of Work Group Exceeding the Following Multiple of High Quarter Earnings Requirement

<u>Actual Weeks Worked</u>	<u>>1.0</u>	<u>>1.25</u>	<u>>1.50</u>	<u>>2.0</u>	<u>>3.0</u>
1-13	45.3%	29.1%	17.2%	3.9%	0.0%
14-15	100.0%	66.7%	25.0%	0.0%	0.0%
16-19	100.0%	84.2%	50.9%	11.8%	0.0%
20-25	100.0%	97.3%	85.9%	41.1%	2.7%
26-30	100.0%	100.0%	97.5%	59.4%	1.9%
31-40	100.0%	99.7%	99.7%	92.9%	8.1%
41-47	100.0%	100.0%	100.0%	97.5%	53.0%
48-52	100.0%	100.0%	100.0%	99.2%	85.2%

the multiple of weekly benefit amount test was also more favorable to claimants with 20 or more weeks of work than either the multiple of high quarter earnings or weeks of work measures.

4.2.2 Demographic and Economic Analysis

Interstate comparisons by demographic and economic parameters are briefly described below.

Sex

In the two States where females generally had work experience (as measured by weeks of work) equal to or greater than males (Minnesota and Oregon), the monetary eligibility rate for most definitions and requirements for females was higher than for males. In New York and Michigan, where males had more work experience than females, the opposite was true. The multiple of weekly benefit amount definition of attachment clearly was more exclusionary toward women in those States where it was tested. This can be attributed to higher weekly earnings of men at all levels of labor market attachment.

Race and Ethnic Group

There were insufficient numbers of non-white observations for impact analysis comparisons based on race of claimant in Oregon and Minnesota. In addition, New York was the only State where sufficient numbers of Spanish-surnamed claimants were present to examine separately. In New York, blacks qualified under each requirement, except the most stringent, less often than whites or Spanish-surnamed claimants. In Michigan, whites and blacks were indistinguishable in this regard.

Education

Education information was available for Minnesota, Michigan and New York. Since there were no particular eligibility patterns among the different education groups which held across these three States, educational achievement does not appear to be a

good predictor of unemployment insurance eligibility.

Age

In all States, eligibility rates increased with age until the twenty-five to thirty-four or thirty-five to forty-four year-old age group, remaining stable thereafter through age sixty-four. Qualification rates for those less than twenty-five years old were significantly lower than for those twenty-five or older. In New York and Oregon eligibility dropped dramatically over sixty-four, whereas in Michigan it remained stable.*

Average Weekly Wage

Eligibility rates increased with average weekly wage regardless of the eligibility definition or stringency of the requirement. However, the multiple of weekly benefit amount definition was particularly favorable toward claimants with average weekly wages in excess of \$200, especially as the level of stringency was increased. This is not surprising since nearly all claimants earning over \$200 a week earn more than twice the maximum weekly benefit and could, therefore, qualify for unemployment insurance benefits in a shorter time than most workers. Thus, the multiple of weekly benefit amount definition favors high-wage groups (e.g., males, managerial workers). Exhibit 4-5 shows the percent from each State who qualify for benefits at the twenty-six weeks (or equivalent) requirement among those who earned in excess of \$150 per week. As is shown, eligibility rates differed little among the different definitions for those who earned \$151-200 per week, but eligibility rates among those earning more than \$200 per week were much higher for the multiple of weekly benefit amount definition than for the other definitions.

*Minnesota's claimant sample contained too few observations to draw meaningful conclusions about claimants over sixty-four.

Exhibit 4-5: Percent Among Selected Weekly Wage Groups Who Are Eligible
for Benefits Under 26 Weeks of Work Equivalent for the
Three Different Eligibility Definitions

<u>State and Wages Per Week</u>	<u>50 Times Weekly Benefit Amount</u>	<u>2.0 Times High Quarter Earnings</u>	<u>26 Weeks of Work</u>
<u>Michigan</u>			
\$150-200	-	-	74.0%
>\$200	-	-	79.1%
<u>Minnesota*</u>			
\$151-200	78.4%	75.5%	77.7%
>\$200	88.1%	76.1%	76.3%
<u>New York</u>			
\$151-200	80.3%	-	78.7%
>\$200	91.3%	-	75.0%
<u>Oregon</u>			
\$151-200	86.4%	80.2%	84.0%
>\$200	96.1%	81.8%	84.1%

*Unweighted data.

Total Base Year Wages

As with average weekly wage, eligibility rates increased as total base year wages increased, and the multiple of weekly benefit amount definition was the easiest for high wage category claimants to qualify under. In fact, in New York and Oregon, all claimants with base year wages in excess of \$5,000 and all claimants in Minnesota who earned more than \$9,000 in the base year were eligible under the multiple of weekly benefit amount definition regardless of the level of stringency.

Occupation

Interstate patterns were difficult to identify for this economic parameter. Managerial workers were more likely than average to be eligible under any definition and level of requirement except in Oregon, where eligibility rates were about average across all occupational groups. Services workers were less likely than average to be eligible under any definition and level of requirement, again except in Oregon.

Compared to the other definitions, the multiple of weekly benefit amount definition seemed to favor professional workers more than any other group, especially as it became more stringent. This is, in all likelihood, the result of the high weekly wages earned by this group compared to the average weekly wage for all claimants in each State.

Industry of Employment

Much as with occupation, few patterns that were consistent across States were obvious for industry of employment. Durables manufacturing workers were more likely to be eligible than average for each State and consistently more likely to be eligible than claimants from the non-durables manufacturing sector. Claimants from the transportation sector were more likely to be eligible under any eligibility definition and requirement than the average. Trade workers were less likely to be eligible than average.

More stringent weeks of work and multiple of high quarter earning requirements tended to disqualify more construction workers compared to claimants from the other sectors. This is not surprising since construction workers generally had fewer weeks of work than workers in general.* It is also not surprising that construction workers fared better than average with multiple of weekly benefit amount definition since average weekly wage among construction workers was much higher than for claimants in general.

Where enough observations were available to draw meaningful conclusions, government sector claimants were eligible more often than average.

4.3 Measuring the Effects of Alternative Definitions of Attachment Within Individual States

Because of differences in the construction of the data bases, the cross-State analysis presented above has been supplemented by an effort to examine the effects of selected changes in definitions within individual States. Results for each of the four States are presented below.

4.3.1 Michigan Impact Analysis

Michigan has an extremely low weeks of work requirement. If one believes that knowledge about State unemployment insurance laws is reasonably widespread, and therefore that people who know they are not eligible for benefits do not apply, then an analysis of Michigan data will give us the best portrait possible of the population of applicants with less than the 17 or 18 weeks of work required in many other States.

The impact analysis in Michigan was confined to a comparison of the impact of a changing weeks of work requirement. Four

*For relevant cross-tabulations, see Appendix C.

weeks of work requirements -- 14, 16, 20 and 26 -- were applied to the sample of claimants. Exhibit 4-6 shows the impact of the increasing requirements on the total sample. As the information in the exhibit illustrates, increasing the eligibility requirement in Michigan by only 2 weeks (i.e., from 14 to 16 weeks) from its current level would have a significant negative impact on the number of workers that qualify for benefits. Roughly speaking, moving from 14 to 16 weeks of work would eliminate 1 in every 20 UI eligibles.

4.3.2 New York State Impact Analysis

Exhibit 4-7 summarizes the impact of the differing weeks of work and multiple of weekly benefit amount requirements on the eligibility rate of the New York claimant sample. The difference in eligibility rates for equivalent weeks of work and multiple of weekly benefit amount aggregate requirements was not great except at the 26 weeks of work level.

Exhibit 4-8 provides a breakdown of these data, illustrating how claimants who worked less than 20 weeks fared under each requirement as compared to those claimants who worked 20 weeks or more. As the exhibit shows, both groups fared better at the 26 weeks work level when the multiple of weekly benefit amount criterion was applied. In fact, the multiple of weekly benefit amount requirement at any level seemed more favorable to those who worked less than 20 weeks.

4.3.3 Minnesota Impact Analysis

For Minnesota, impact analyses were conducted for three eligibility definitions -- weeks of work, multiples of weekly benefit amount and high quarter earnings. Exhibit 4-9 shows the impact of the different definitions and requirements on the total Minnesota claimant sample. As the exhibit shows, the multiple of weekly benefit definition had consistently higher eligibility rates than the weeks of work definition, regardless

Exhibit 4-6: Percent of Total Michigan Claimant Sample
That Meet Each UI Eligibility Requirement

	<u>UI Eligibility Requirement</u>			
	<u>14 weeks</u>	<u>16 weeks</u>	<u>20 weeks</u>	<u>26 weeks</u>
Percent that Qualify	91.4%	87.2%	80.0%	71.2%

Exhibit 4-7: Percent of Total New York Claimant Sample
That Qualifies Under Each UI Eligibility
Requirement

<u>Weeks of Work</u>	<u>Percent That Qualify</u>	<u>Multiple WBA</u>	<u>Percent That Qualify</u>
14	95.1		
16	93.0	30	94.6
20	87.3	40	87.4
26	72.4	50	78.6

Exhibit 4-8: Percent of New York Claimant Sample That Qualified Under Each UI Eligibility Requirement
(Claimants With Less than 20 Weeks of Work vs. Those With 20 or More Weeks of Work)

<u>Weeks of Work Eligibility Requirement</u>	<u>Percent That Qualify</u>		<u>Multiple of Weekly Benefit Amount Requirement</u>	<u>Percent That Qualify</u>	
	<u><20 weeks of work</u>	<u>>20 weeks of work</u>		<u><20 weeks of work</u>	<u>>20 weeks of work</u>
14 weeks	60.4	100.0	30	57.8	100.0
16 weeks	43.0	100.0			
20 weeks	0.0	100.0	40	16.8	97.6
26 weeks	0.0	82.9	50	9.2	88.7

Exhibit 4-9: Percent of Total Minnesota Claimant Sample That Qualify Under Each UI Eligibility Requirement

<u>Weeks of Work</u>	<u>Percent Eligible</u>	<u>Multiple WBA</u>	<u>Percent Eligible</u>	<u>Multiple HQE</u>	<u>Percent Eligible</u>
14	87.0%	30	89.1%	1.25	87.7%
16	85.5%				
20	76.2%	40	80.8%	1.50	80.7%
26	67.2%	50	73.2%	2.00	64.7%

Exhibit 4-10: Percent of Minnesota Claimant Sample That
Qualified Under Each UI Eligibility Requirement
(Claimants With Less Than 20 Weeks of Work vs.
Those With 20 or More Weeks of Work)

Weeks of Work Eligibility Requirement	Percent That Qualify		Multiple of Weekly Benefit Amount Requirement	Percent That Qualify		Multiple of High Quarter Earnings Requirement	Percent That Qualify	
	<20 Weeks of Work	>20 Weeks of Work		<20 Weeks of Work	>20 Weeks of Work		<20 Weeks of Work	>20 Weeks of Work
14	45.3	100.0	30	54.3	100.0	1.25	55.5	97.7
16	38.9	100.0		21.4*	99.4*		1.50	30.2
20	0.0	100.0	40	5.4*	94.4*	2.00	9.5	81.9
26	0.0	88.2	50					

*Estimated.

of the level of stringency. However, other interdefinitional comparisons are more mixed.

Exhibit 4-10 shows how claimants who worked less than 20 weeks fared under each requirement vs. those claimants who worked 20 weeks or more. As in New York, both weeks of work claimant groups fared better at the 26 weeks of work equivalent when the multiple of weekly benefit amount definition was used instead of the weeks of work definition. The multiple of high quarter earnings definition, regardless of the level of stringency, was consistently more favorable to those claimants who worked less than 20 weeks in the base year than those who worked 20 weeks or more as compared to the two other equivalent definitions. It should be remembered that Minnesota data is unweighted and, thus, may not be representative of what might actually occur if the different definitions and requirements were applied to all UI claimants.

4.3.4 Oregon Impact Analysis

For Oregon, impact analyses were conducted using three eligibility definitions -- weeks of work, multiples of weekly benefit amount and high quarter earnings. Exhibit 4-11 shows the impact of the different definitions and requirements on the total Oregon claimant sample. As in Minnesota, weeks of work was the most stringent eligibility requirement up to an "equivalent" of twenty weeks. For twenty-six weeks, the multiple of high quarter earnings was the most difficult to qualify under and the multiple of weekly benefit amount the easiest to qualify under. Exhibit 4-12 shows how those who worked less than 20 weeks fared under each requirement vs. those who worked 20 weeks or more. The results, by weeks of work group were remarkably similar to the results obtained in both New York and Minnesota. Specifically, both weeks of work claimant groups fared better at the 26 weeks of work equivalent when the multiple of weekly benefit amount definition was used instead of the weeks of work

Exhibit 4-11: Percent of Total Oregon Claimant Sample That Qualify Under Each UI Eligibility Requirement

Weeks of Work	Percent Eligible	Multiple of WBA	Percent Eligible	Multiple HOE	Percent Eligible
14	90.7	30	90.4		
16	90.0			1.25	90.6
20	84.1	40	84.6	1.50	86.1
26	71.5	50	76.5	2.00	69.5

Exhibit 4-12: Percent of Oregon Claimant Sample That Qualified Under Each UI Eligibility Requirement
(Claimants With Less Than 20 Weeks of Work vs. Those With 20 or More Weeks of Work)

<u>Weeks of Work Eligibility Requirement</u>	<u>Percent That Qualify</u>		<u>Multiple of Weekly Benefit Amount Requirement</u>	<u>Percent That Qualify</u>		<u>Multiple of High Quarter Earnings Requirement</u>	<u>Percent That Qualify</u>	
	<u><20 Weeks Worked</u>	<u>>20 Weeks Worked</u>		<u><20 Weeks Worked</u>	<u>>20 Weeks Worked</u>		<u><20 Weeks Worked</u>	<u>>20 Weeks Worked</u>
14	41.2	100.0						
16	37.2	100.0	30	39.3	100.0	1.25	44.7	99.3
20	0.0	100.0	40	4.8	99.7	1.50	26.7	97.3
26	0.0	85.0	50	2.6	90.5	2.00	5.7	81.5

definition. Also, the multiple of high quarter earnings definition, regardless of the level of stringency, was consistently more favorable to those claimants who worked less than 20 weeks in the base year than those who worked 20 weeks or more as compared to the two other equivalent definitions.

4.4 Impact of Typical Financial Requirements

The results in Section 4.3 were based upon the simplified assumption that no minimum earning requirements were used in conjunction with each UI qualifying measures. Since such requirements are always utilized by the States as part of their UI eligibility test, a limited exploration of the impact of the following typical minimum earnings requirements on qualifying rates was undertaken as follows:

- for weeks of work definitions, average earnings of at least \$25.01 per week were stipulated in addition to satisfying the weeks of work requirement, and
- for multiples of weekly benefit amount and multiples of high quarter earnings definitions, earnings of at least \$500 in the base year were stipulated in addition to satisfying the multiples requirement.

Exhibit 4-13 compares the impact of the minimum earnings per week of \$25.01 vs. no minimum on weeks of work qualifying rates, while Exhibits 4-14 and 4-15 compare the impact of minimum base year earnings of \$500 vs. no minimum on multiples definitions qualifying rates.

Except in Michigan, whose sample included a significant number of claimants with low wages and high attachment levels (as measured by weeks of work during the base year), the imposition of typical minimum earnings requirement had a relatively minor impact on eligibility rates.

Exhibit 4-13: Impact of Minimum Weekly Earnings on
Percent Who Qualify for UI Benefits:
Weeks of Work Definition

<u>State</u>	<u>Minimum Weekly Earnings*</u>	<u>Percent Who Qualify Under Requirement of:</u>			
		<u>14 weeks</u>	<u>16 weeks</u>	<u>20 weeks</u>	<u>26 weeks</u>
Michigan	No Minimum	91.4	87.2	80.0	71.2
	\$25.01	76.5	73.1	67.5	60.7
New York	No Minimum	95.1	93.0	87.3	72.4
	\$25.01	94.5	92.4	87.0	72.0
Minnesota**	No Minimum	87.0	85.5	76.2	67.2
	\$25.01	84.6	83.1	73.8	65.0
Oregon	No Minimum	90.7	90.0	84.1	71.5
	\$25.01	90.5	89.9	84.0	71.3

*Average earnings per week.

**Unweighted data. This probably exaggerates the impact of the imposition of minimum weekly earnings requirement.

Exhibit 4-14

Impact of Minimum Base Year Earnings on Percent Who Qualify for
UI Benefits: Multiple of Weekly Benefit Amount Definition

State	Minimum Base Year Earnings	Percent Who Qualify Under Requirement of		
		30xWBA	40xWBA	50xWBA
New York	No Minimum	94.6	87.4	78.6
	\$500	94.5	87.3	78.5
Minnesota*	No Minimum	89.1	80.8	73.2
	\$500	88.5	80.2	72.7
Oregon	No Minimum	90.4	84.6	76.5
	\$500	90.3	84.6	76.5
*Unweighted data. This probably exaggerates the impact of the imposition of minimum base year earnings requirements.				

Exhibit 4-15

Impact of Minimum Base Year Earnings on Percent Who Qualify
For UI Benefits: Multiple of High Quarter Earnings Definition

State	Minimum Base Year Earnings	Percent Who Qualify Under Requirement of		
		1.25xHQE	1.50xHQE	2.00xHQE
Minnesota*	No minimum	87.7	80.7	64.7
	\$500	86.9	80.2	64.5
Oregon	No minimum	90.6	86.1	69.5
	\$500	90.0	85.9	69.4
*Unweighted data. This probably exaggerates the impact of the imposition of minimum base year earnings requirements.				

Chapter 5

SEASONALITY AND UNEMPLOYMENT INSURANCE

5.1 Introduction

Much unemployment is said to be the result of "seasonal factors." Seasonal demand is present in almost all sectors of the economy. For example, the construction industry has traditionally experienced slack business periods during the winter months. There is a greater demand for services rendered by retail stores around Christmas; automobile factories and apparel manufacturers traditionally close down part of the year to accommodate model changes. Other industries are even more affected by changes in the season: hotels and resorts may close for one or more seasons and the ripening of fruits and vegetables causes substantial increases in employment in the canning and food processing industry during specific months of the year.

In order to examine the effects of measures of attachment upon seasonal workers and seasonal industries, it is important to have a reasonable definition of what constitutes seasonal employment and unemployment. There seems to be no legislative or judicial agreement as to what constitutes "seasonality of employment." In cases cited in Murray, judicial interpretation of seasonality restrictions has varied from State court to State court.* In particular, a distinction between workers in seasonal

*Murray, Merrill, The Treatment of Seasonal Unemployment Under Unemployment Insurance.

industries and seasonal workers seems necessary. Workers in seasonal industries may work full-time for all or most of the year in a seasonal industry and still be available for--and actively seek work in--other industries during periods of slow activity in their principle ("seasonal") industry.

Seasonal workers, in contrast, would be those workers available for work for only a few months of the year. While at work, they might be employed by either seasonal or non-seasonal industries, although State studies have demonstrated that they tend to cluster in the canning, agricultural, construction, retail trade and service sectors--sectors usually considered to be more seasonal than the economy as a whole. Since we cannot identify seasonal workers based upon a single year's data, our only alternative was to confine our study to workers employed in "seasonal" industries.

The remainder of this chapter discusses theoretical reasons to restrict benefits to "non-seasonal" workers, presents evidence for and against seasonal restrictions, and examines the attachment of workers in selected seasonal industries in the four sample States.

5.2 Economic Theory and Seasonal Eligibility Restrictions

There are several theoretical justifications for restricting or denying unemployment insurance benefits to workers in "seasonal" industries.* These include:

- Given the maximum tax rates of the experience rating system, highly seasonal employers will be subsidized by other employers. This would occur because highly seasonal sectors would not pay insurance costs (taxes) equivalent to the amount of benefits collected by their employees;
- Also, given such a tax structure, the availability of unemployment insurance constitutes an "unambiguous wage subsidy" to employees in seasonal industries because it reduces the

* These are discussed in more detail in Appendix A to this report.

acceptance wage for employees who know they will receive unemployment benefits when the work ends. Similarly, unemployment insurance encourages less stable employment patterns in seasonal industries because it decreases employer reluctance to lay off employees and increases the attractiveness of seasonal industries relative to non-seasonal industries for workers (as a result of the availability of both unemployment insurance and leisure at the end of a job);

- Administrative costs of covering some seasonal employees, especially those in the agricultural sector, would be higher than in other sectors as a result of the number and turnover of employers and employees; and
- Because lay-offs in seasonal industries are often "predictable," worker unemployment can be considered to be voluntary, and, therefore, should not be eligible for benefits.

Proponents of extension of unemployment insurance coverage to seasonal industries have addressed these justifications. Two arguments are most commonly used to rebut arguments about inequities of the tax system: (1) The current system already subsidizes those employers who have a particularly bad past record of lay-offs. Thus, there is no justification to exclude some industries on this basis; and (2) maximum tax rates could be raised for some employers to eliminate or reduce wage and/or employment subsidies if desired.

Two additional arguments are cited to rebut the "predictability" justification for coverage restrictions: (1) The voluntary nature of employment in seasonal industries presupposes that workers have freedom of choice between jobs in seasonal and non-seasonal industries. This may not be the case, especially for low income workers. (2) Proponents of coverage extension argue that, although lay-offs may be more or less predictable at the industry or firm level, they may not be predictable for the individual

worker. Thus, it is inequitable not to insure this worker to minimize his risk as we do for all other workers.

The most cogent argument for not restricting benefit rights for workers employed in seasonal industries is that if the purpose of unemployment insurance is to cover the individual who is truly involuntarily unemployed and is genuinely looking for work outside of the season, then this unemployment ought to be compensated.*

The passage of PL 94-566 has rendered much of this controversy moot as far as many workers in the agricultural and some other sectors are concerned, since it extends UI benefit coverage to these workers.

5.3 Problems in Defining Seasonality

5.3.1 Problems in Defining Seasonal Industries

Several factors inhibit the precise designation of a seasonal industry. Most common definitions that have been used by State unemployment insurance agencies include provisions that restrict benefits to workers who have worked in industries that regularly close or operate at low levels of production during part of the year. Complications arise as a result of the massive amount of seasonal unemployment extant overall--a BLS study in 1957 estimated that 25% of all unemployment could be termed seasonal--and the pervasive nature of seasonality in the United States economy. There is some seasonal variation in demand for almost every product or service.

Conceptually, the problem of classifying industries as seasonal or non-seasonal becomes more difficult because:

- Reactions to variation in demand within each industrial sector vary considerably. Thus, while some firms in a sector may shut down completely for part of a year, other firms in that sector may operate continuously at substantially the same level of production for the entire year;

* See also Merrill G. Murray, The Treatment of Seasonal Unemployment Under Unemployment Insurance.

- In any "seasonal sector" the period of operation-- i.e., the time of year the firm operates-- may fluctuate from year to year for any specific employer as well as the sector in general; and
- In any "seasonal sector" the length of time-- i.e., the number of weeks--of operation may vary from year to year for any specific employer as well as the sector in general.

These factors render exceedingly complex any attempt to specify what constitutes "regular shutdowns" or "low levels of production." Those States that have attempted to classify industries as seasonal for the purpose of restricting benefit eligibility have used (1) time or period of operation, (2) the ratio of lay-offs to peak employment, or (3) the sector of the industry as their basis for classification. Sectoral classifications (used in Delaware, Minnesota, and Wisconsin) exclusively designate as seasonal industries those which process perishable food and other agricultural and horticultural products.

5.3.2 Problems in Defining the Seasonal Worker

The problems which arise as a result of efforts to classify certain industries as seasonal are complicated even further when distinctions between seasonal and non-seasonal workers are attempted. A New York study of insured workers in selected industries indicated that 68% of all construction workers, 34% of all cannery workers, and 21% of all hotel employees worked in their respective sectors for more than thirty weeks (versus 11%, 34% and 37%, respectively, who worked less than fourteen weeks).^{*} This provides strong evidence that length of employment in nominally "seasonal" industries can be highly variable, and is in fact relatively stable for some workers.

Furthermore, a study in South Carolina determined that workers in the construction industry--usually considered a "seasonal" industry--had earnings outside the construction industry in far greater numbers than workers in any other major sector had earnings outside their primary industry of employment.

^{*}Gladys Webbinck, Entitlement for Benefits, 1970.

Thus, in this case, many construction workers, although they may be considered to be working for a seasonal industry, were not seasonal workers.

5.4 Current Treatment of Seasonality in State Law

At one time, thirty-one States had provisions in their UI laws which restricted or denied benefits to workers in so-called seasonal industries. Use of restrictions has diminished considerably in recent years, however.

The vast majority of States now treat claimants from "seasonal industries" the same as all other claimants, i.e., they rely upon their minimum labor force attachment provisions to restrict the benefit eligibility of workers in these industries. The requirement which allocates earnings to two or more quarters used by several States is, in part, a system to screen out those in such seasonal industries who are seasonal workers as well, although this is not particularly effective for this purpose since seasonal work often straddles two calendar quarters.

5.5 Empirical Analysis of Seasonality

5.5.1 Methodology

A number of shortcomings in the available data limited the ability of USR&E to conduct a comprehensive analysis of the impact of seasonality upon differing definitions of labor force attachment. In particular, the absence of more than one year of wage data prevented an evaluation of which workers are seasonal workers since no long-term patterns of labor market attachment can be observed for the individual worker. Moreover, since no data were available on how many claimants worked for more than one industry (rather than one employer) and what percentage of wages was earned outside the principal or last industry of

employment,* it was impossible to determine the labor market behavior of claimants from seasonal industries during their base year.

For this study we have identified five industries which the relevant literature, or one or more of the sample States, have identified as having seasonal patterns of operation. These are:

- Construction (SIC 15 through SIC 17);
- Canning (SIC 203);
- Apparel manufacturing (SIC 23);
- Wood products manufacturing (SIC 24); and
- Motor vehicles manufacturing (SIC 371).

In each State we examined the claimants who worked for these industries and analyzed their characteristics, including their lay-off patterns to determine if these patterns indeed were seasonal as compared to the State in general.

In no State were there a sufficient number of observations in all five seasonal industry categories. To draw meaningful conclusions, sufficient observations were found for the following industry categories and States:

- construction--all four sample States (regular slowdown in activity during the winter months);
- canning and food processing--Oregon;
- apparel manufacturing--New York;
- wood products manufacturing--Oregon (regular winter slowdown); and
- motor vehicles manufacturing--Michigan (regular retooling shutdowns in the summer).

* Oregon records industry of employment by principal industry of employment (which industry provided the greatest percentage of wages), whereas all other States record industry of employment by last industry of employment.

5.5.2 Empirical Analysis of Patterns of Seasonality

Empirical analysis of the patterns of claims from the industries which are generally considered to be seasonal confirms that they are indeed different from the patterns of claims from the general population. Contingency tables were constructed for each State displaying monthly distribution of claims for relevant industrial categories including a category of "all other claimants." A chi-square statistic was then calculated to determine if the seasonal industries and all other industries exhibit different seasonal lay-off patterns. In all States, the chi-square statistic was significant at the .01 level, indicating that all "seasonal" economic sectors tested were indeed more seasonal than the norm in their claimant separation patterns.*

The seasonal industries identified were then compared to the State average on the basis of weeks of work and average weekly wage. (See Exhibits 5-1 and 5-2). No single pattern emerged across all industries: claimants from some industries had higher attachment levels than average, some had average attachment, and some had less:

- Motor vehicle manufacturing workers in Michigan and wood products manufacturing workers in Oregon demonstrate attachment to the labor force generally higher than the State average. The percentage of claimants who worked essentially the entire year (more than 40 weeks) during the base period was equal to or greater than the State average in these industries. The average weekly wage for these workers was much higher than the State average. These workers will qualify at greater rates than the State average under much more restrictive conditions than currently exist.

* The data are presented in Appendix E to this report.

- Construction workers' attachment was close to the State average. The percentage of claimants who worked essentially the entire year during the base period was less than the State average but still substantial. The average weekly wage for these workers was much higher than the State average, implying that they would qualify under fairly restrictive financial eligibility criteria.
- Apparel manufacturing workers in New York and canning and food processing workers in Oregon had attachment much lower than the State average over the base period, and the percentage of such claimants who worked essentially the entire year during the base period was relatively very low. The average weekly wage for these workers was lower than the State average. Many claimants from these sectors are already excluded by existing unemployment insurance eligibility regulations. (Few of those from the first two categories are so excluded.) These individuals would qualify at even lower rates with increased weeks of work and/or higher dollar minimums.

5.6 Policy Conclusions

Even though evidence of "seasonal industries" was found in each State, it is not clear that employment by such an industry should have any bearing on eligibility for unemployment insurance. A large percentage of claimants from most of the seasonal industries identified in the four sample States worked essentially for the full year (more than 40 weeks of the past 52) prior to filing a claim. This tends to support the claim that, although lay-offs in a seasonal industrial sector may be more or less predictable at the industry level, they are not necessarily predictable for the worker in that industry. Also, for most of the sectors, the percentage of claimants employed for 26 weeks or more during the base period was similar to or greater than the State average. Under even the most stringent standards contemplated, these claimants have demonstrated a sufficient attachment to the labor force to qualify for unemployment insurance. Finally, many claimants from the seasonal industry sectors which were analyzed earned relatively high wages.

Although it can be argued that these high wage levels were in part compensation for a high probability of a lay-off, the unpredictability of employment duration and period for the individual worker can be seen as militating against denying income protection to workers in these sectors.

Therefore, since individual claimants from seasonal industries may demonstrate any level of attachment to the labor force depending on individual circumstances, it is recommended that no distinction be made between claimants in seasonal industries and those in non-seasonal industries for unemployment insurance eligibility purposes. Any value judgment in favor of excluding from benefits most workers from any industry identified as seasonal should take the form of increasing the stringency of the eligibility requirement and applying this requirement equally to all workers. All provisions discriminating against claimants from seasonal industries or against the wages earned in these industries for UI eligibility purposes should therefore be eliminated.

A more equitable way of dealing with unemployment insurance claims against seasonal industries (and against non-seasonal firms with a particularly bad lay-off record) might be to raise maximum tax rates (for the unemployment insurance fund) on firms in these industries to reflect their employment record. This should also have the long-run effect of decreasing any subsidy of seasonal employment patterns among workers by lowering the wage rates in seasonal industries relative to non-seasonal industries (since, theoretically, employers would pass at least part of the higher tax on payroll along to employees by lowering salaries).

Exhibit 5-1 Work Experience of Claimants From Seasonal Industries
Over the Base Period Compared to State Sample Average

		<u>Percent in Each Weeks of Work Category</u>				
<u>State</u>	<u>Industrial Sector</u>	<u>0-13</u>	<u>14-19</u>	<u>20-25</u>	<u>26-40</u>	<u>41-52</u>
Michigan	Total State Sample	8.6	11.4	8.8	71.1*	NA
	Construction	15.7	14.8	6.5	63.1*	NA
	Motor Vehicles Manufacturing	4.1	4.6	7.8	83.5*	NA
Minnesota	**Total State Sample	13.0	10.8	9.0	21.1	46.1
	Construction	6.4	13.0	12.1	30.9	37.6
New York	Total State Sample	4.8	7.9	15.0	27.7	44.6
	Construction	2.5	7.5	22.4	29.5	38.1
	Apparel Manufacturing	4.3	17.7	16.9	31.7	29.6
Oregon	Total State Sample	9.3	6.5	12.5	31.2	40.5
	Construction	3.5	4.5	19.1	45.7	27.3
	Canning and Food Processing	11.8	12.3	29.6	26.3	19.8
	Wood Products Manufacturing	4.6	5.4	14.0	38.2	37.7
*Michigan collects weeks worked only to a maximum of 35 weeks						

**All data unweighted.

*All data unrewighted.

*All data unrewighted.